

34. On the Species of *Alastor* (*Paralastor*) Sauss. and some other Hymenoptera of the Family Eumenidæ. By R. C. L. PERKINS, M.A., D.Sc., F.Z.S.

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(Plate I.*)

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The name *Paralastor* was given by Saussure to one of the several divisions of the genus *Alastor* which were characterized by him. It includes all the species of the Australian region, except one, *Paralastoroides clotho* Lep., and this differs but little from the other Australian species.

Paralastor is a valid genus, and has no close affinity with the non-Australasian forms included in *Alastor*. Its most remarkable character lies in the structure of the antennæ of the male, the peculiarities of which were quite overlooked by Saussure, as they were also in other genera of Eumenidæ, such as *Abispa* and *Pachodynerus*. The antennæ of *Paralastor* ♂ consist always of eight well-developed joints, followed by four, three, or two small, or often very minute, ones. This deficiency in the normal number of joints of the male is always accompanied in both sexes by a thoracic structure, so different from that of the *Alastor* of other countries that the genus is extremely well defined. The thoracic characters have been so clearly stated by Saussure that it is not necessary to repeat them here.

The S. African species *Alastor braunsi* Meade-Waldo, and *Alastor variolosus* Bingham from Ceylon are members of one group, quite distinct from *Paralastor*, having ordinary male antennæ with the normal number of joints (13), as in *Odynerus* and like European *Alastor*. On the other hand, the E. African *Rhynchialastor fuscipennis* M.-W. is more related to the S. American species, such as *A. melanosoma* Sauss., but the clypeus is pointed at the apex and the 2nd ventral segment of the abdomen has a costate sulcature followed by a deep large impression, and is not merely flattened between lateral carinations.

The coloration of the species of *Paralastor* is interesting, in that, like the *Odynerus* of the Hawaiian Islands and elsewhere,

* For explanation of the Plate see p. 624.

the species form a number of distinctive colour-groups, which are quite different from the groups formed by them when characters of structure are considered. Particularly interesting are the species of the second division of the genus as arranged by me, since several of these closely resemble small species of Australian *Icaria*, social wasps, which are found in the same localities. The resemblance is rendered far more perfect from the fact that in these *Paralastor* the basal abdominal segment is reduced in size and is less wide than usual, so that the abdomen approaches in form that of some of these social wasps.

As to the other division of *Paralastor*, the species not only form colour-groups amongst themselves, but these groups mostly, and perhaps all of them, reproduce the colours and patterns of other genera of solitary wasps, *Odynerus*, *Rhynchium*, and *Abispa*. Even the bees of the genus *Hylaeoides* (Prosoptidæ) are drawn into these colour-groups, and both in these bees and some of the *Odynerus* the resemblance extends beyond the matter of colour, so that certain peculiarities of structure are reproduced in all. I have elsewhere (Ann. & Mag. N.H. (8) ix. 1912, p. 108, *Hylaeoides*, and p. 121, *Abispa*) referred to cases of this structural mimicry combined with mimicry in colour. How great is the resemblance may be judged from Saussure's description of *Alastor fraternus*, of which he says: "Presque identique par la coloration avec les *Odynerus clypeatus* et *concolor*; formes les mêmes," etc.; but this case, naturally, does not compare in interest with that of the bee *Hylaeoides*, where structures identical with those of *Paralastor* are assumed, these structures being unique in that family of bees to which *Hylaeoides* belongs. In the case of the *Odynerus* and other Eumenid genera, where structural and colour mimicry are combined, we are at least dealing with members of a single family, however distinct the genera themselves may be.

All the species of *Paralastor* from Tasmania that I have myself seen, are extremely similar in appearance, with nearly white markings and two very narrow abdominal bands. *Odynerus* of quite similar appearance were taken with these by Mr. R. E. Turner last year.

In N. Queensland, *P. optabilis*, which has a coloration entirely unlike any other Queensland species of its genus, is mark for mark the same as an *Odynerus* occurring with it, and both have similar structural peculiarities.

At Adelaide in S. Australia and in Victoria are numerous species with deep dull orange or red markings, superficially either entirely or nearly resembling one another, though falling into the most diverse structural groups. These species seem to vary in their patterns individually, and it would appear that different species exhibit similar variations of pattern.

Orange-marked species (though found elsewhere) are abundant in Queensland, while W. Australia has a very distinct colour-group, the thorax of the species being largely red, and the basal abdominal segment similarly coloured, while the rest is black. It

is interesting to note that the four members of this last colour-group that are at present known fall each in a totally different group structurally. Of course, W. Australia has species otherwise coloured, which resemble those from other parts of the country.

North Queensland has a number of species remarkable for the ornamentation being nearly confined to the large 2nd abdominal segment, the pattern of this being very distinctive, sometimes ferruginous, sometimes yellow or nearly white.

It is evident that many and perhaps most of the species exhibit considerable variety in colour or pattern of colour, as also in smaller details of structure, but to what extent this is the case, whether as regards individuals from one station or those from separate localities, the material at my disposal is far too limited to decide. This material consists of the British Museum Collection, excluding the actual types of Saussure and Smith (most of which, however, I have examined); of the collection in the Hope Department of Zoology in the Oxford Museum, including types, and of my own collection. The total number of specimens is only 333, although 2000 or more would hardly be adequate for dealing with the genus satisfactorily. Moreover, as six species together account for 101 of the 333 examples, it will be seen that about 90 species are represented very poorly indeed. There is no doubt that great numbers of species and local forms remain to be discovered, and the genus will ultimately prove to be very difficult. Even at present the species are not at all easy, compared with the Hawaiian *Odynerus*, which about equal them in number.

A great deal of the material in the British Museum and at Oxford is very old and often dirty, and has, further, been badly mishandled in the desire to extend the wings.

In *Alastor*, *Odynerus*, and kindred genera, the abdomen should always be kept flat on the ventral surface, and not bent at the suture between the first and second abdominal segments, as is often the case. It should, however, be bent downwards at the petiolar articulation, so as to fully expose the propodeum. If properly mounted in this way, the base of the second ventral segment will be fully exposed and the structure of the segment readily observable. To anyone who has handled many hundreds of species of Eumenidæ, proper preparation of the specimens is of minor consideration, as he will easily make allowance for the retraction or flexure of the second ventral segment, but to one not so circumstanced, the difference in appearance caused by poor preparation may be a source of serious error.

Two species which I have described on single specimens have not the neuration of *Paralastor*, but of *Odynerus*, the second cubital cell not being petiolate. Whether they are constant in this character or not, remains to be proved. It is in any case a very feeble one, for in some species the petiole of the cell is very much reduced, so that it was quite certain that sometimes, either

as a variation or as a specific character, it would be altogether wanting. The importance placed on small differences in neuration in Hymenoptera has been much overrated, and there is little to commend these characters, excepting the fact that they are obvious at a glance.

Some described species it is impossible for me to tabulate, as I have never seen specimens of them, and the descriptions, admirable as Saussure's are in general, omit certain important points. Some, not included in the tables, I have referred to subsequently with regard to their probable position. The following may be briefly mentioned here:—

- P. albifrons* Fabr. If the tegulæ have a coarse, deep, and conspicuous puncturation, this species would appear to be extremely closely allied to *P. habilis* and *subhabilis*, but superficially distinct by having only “deux très petits points orangés sur le prothorax” and the apical band of the 2nd abdominal segment semicircularly emarginate, the emargination being much deeper in the other two.
- P. australis* Sauss. This would fall in my table in the group of *P. princeps*, *oloris*, etc. If Saussure's specimen was correctly stated to be a female, the yellow clypeus and front of the scape of the antennæ would distinguish it from the females known to me, which resemble it otherwise in colour, as well as the spot on the mesopleura from either males or females of this section.
- P. clotho* Lep. I know no species with this pattern, except *Alastor unifasciatus* Sm., which lacks the scutellar spots, has dark tegulæ and very dark wings with violet iridescence, and is not an Australian species.
- P. cruentatus* Sauss. I think it is impossible to identify this species without seeing the type.
- P. flaviceps* Sauss. I have included this in my table where it would appear to belong. If the tegulæ are coarsely punctured it is correctly placed. In any case it is distinct superficially from all the species which have an entirely black basal segment by the sulphur-yellow head with a black oval mark on the vertex, enclosing the ocelli.
- P. graeffei* Sauss. This species from Ovalau is unknown to me and not included in my table.
- P. lachesis* Sauss. Not included in my table, as the sculpture of the tegulæ is not indicated in the description. Superficially it resembles *P. orientalis* P.
- P. lateritius* Sauss. I suspect this of being a slight colour-variety of *P. carinatus* Sm.
- P. nautarum* Sauss. Probably tabulated rightly; as it is one of the species with “un tubercle saillant en dessous du deuxième segment,” an emarginate clypeus, and the abdomen all black, except the orange basal segment, it cannot be confused with any other known to me.

P. smithi Sauss. I unfortunately failed to examine the type of this species, which is in the British Museum, and I cannot place it in my tables from the description nor identify it with any of those described by me.

P. hirtiventris Cameron. I have seen Cameron's ♂ type. It is the largest species of the genus, the tibiae with long conspicuous hairs beneath. The second ventral segment is greatly raised behind the sulcature, prominent at the top of the truncation medially, and clothed with long erect hairs all over, the following segments densely hairy. The thorax is all black, the 1st and 2nd abdominal segments with wide orange apical bands clothed very conspicuously with erect hairs.

I have to thank the authorities of the British Museum for the loan of their specimens for description. Several of these bore type-labels of Saussure's, but the species were not described by him. I have, except in one instance, adopted the names applied by him to these species. Prof. E. B. Poulton very kindly sent me the whole of the Hope Museum collection of this genus. To Mr. Meade-Waldo I am particularly indebted for examining special structures in some of the British Museum type-specimens, which I had overlooked in the limited time at my disposal there, and for sending me descriptions of some others which I needed to complete this paper.

In the following descriptions the measurements are always taken from the front of the head to the apical margin of the 2nd abdominal segment.

In my description of the 2nd ventral segment I use the adjective "elevatus" as applied to the part which lies behind the transverse *sulcus*, because it is convenient and natural to reverse the insect in examining this segment. Of course in reality the segment is not raised, but produced downwards behind the *sulcus*.

When a species is contained in more than one of the three collections examined by me, the actual type-specimen has always been selected from the British Museum Collection.

The genus *Paralastor* may be divided into two main sections, one of which contains by far the greater number of species and exhibits by far the greater variety of structure. The species of the small division (the *Divisio secunda* of the following table) may be characterized as follows:—

Species semper graciliformes; segmentum primum abdominale conspicue parvum, nunquam fortissime transversum, sed subcampanuliforme, secundo semper, basim versus, utrinque conspicue angustato. Segmentum 2 dorsale basim versus fortissime convexum, ita ut semper (a latere visum) supra segmentum basale fortiter aut fortissime elevatum appareat; secundum ventrale, insecto resupinato, post sulcum suum transversum semper supra partem suam basalem (sive presulcalem) fortissime

oblique elevatum, elevatione summa media nunquam antice producta aut tuberculiformi. Propodeum (excepto *P. picteti*, cujus propodeum nigrum est, abdominis segmento primo rufo, postice pallide-marginato) colore signatum.

There is no absolute discontinuity between the two sections, and one or two species I have placed in both tables. For the most part, however, the insects of either group are separable at a glance by the characters above given, and since the one or two dubious forms are included in both tables, I do not think there can be the least difficulty in placing any of the known forms.

It is clearly the small size of the basal segment that gives the species in the second division their characteristic superficial appearance, and by this also their resemblance to some of the small Australian species of *Icaria* is made much more perfect.

All species that have not the above characters are necessarily referable to the *Divisio prima*.

Divisio prima.

- Thorax, pronoto excepto, semper totus niger; abdominis segmentum basale aut totum nigrum, aut linea aut fascia subabbreviata, haud ad angulos ipsos laterales extensa, sed ante hos evanescente, decoratum.
- (Clypeus semper emarginatus, et abdominis segmentum 2 dorsale basim versus haud conspicue convexim elevatum) 1
- Thorax sæpe aliter decoratus; segmentum abdominis basale nunquam totum nigrum, sed fascia apicali integra, aut nonnullis in speciebus ex majore parte colore ornatum 16
1. Alæ anteriores totæ, aut fere totæ, nigricantes aut profunde infumatæ et conspicue ubique cæruleo-nitentes; clypeus utrinque carina longa, bene exstante, ad aut post medium extensa, haud munitus.
(Abdominis segmentum primum totum nigrum) 2
 - Alæ anteriores in *A. unifasciato* Sm. solo ubique violaceo-nitentes, quo in casu carinis longis, post medium extensis, clypeus est præditus 4
 2. Abdominis segmentum 2 rufo-brunneum aut brunneo-aurantiacum, triangulo elongato, nigro, mediano, a basi post medium segmentum extenso, ornatum *saussurei*, sp. n.
Abdominis segmentum 2 nigrum, fascia apicali flava, rufescente, aut aurantiaca, haud basim suam utrinque attingente, ornatum 3
 3. Femora, trochanteres et tibiæ nigra; fascia segmenti 2 abdominalis antice emarginata *infernalis* Sauss.
Femora, trochanteres et tibiæ rufescentia; fascia segmenti 2 abdominalis angusta, perpaullo utrinque latior ... *rufipes*, sp. n.
 4. Clypeus fortissime emarginatus, emarginatione, ac semicirculus, æque profunda, aut etiam hoc profundiore 5
Clypeus haud profundissime emarginatus, emarginatione arcum, semicirculo minorem, formante 7
 5. Alæ anteriores et posteriores fere æqualiter profunde infuscatæ (parte costali nigriore); abdominis segmentum 2 totum rufo-brunneum, aut brunneo-aurantiacum, margine postico primi angustissime, in parte media, cum secundo concolore *fraternus* Sauss.

- Alæ haud distincte ubique fortiter infumatae, sed ex magna parte hyalinae aut subhyalinae; abdominis segmentum secundum saepius nigro aut fusco colore variegatum; si unicolor est, margo segmenti primi posterior haud coloratus 6
6. Abdominis segmentum 2 ad apicem suum sat late nigrum, parte basali (triangulo mediano parvo excepto) colore albo-flavo ornata, fasciam, profunde angulariter postice excisam, formante *conspicuus*, sp. n.
- Abdominis segmentum 2 totum pallidum, aut macula nigra aut fusca elongata mediana, nonnunquam marginem basalem, nonnunquam apicalem attingente, ornatum, picturatione variabili; color segmenti, ut apparet, testaceo-flavus, aut pallide ferrugineus (an post mortem discolor?) ... *dubiosus*, sp. n.
7. Stigma alarum nigrum aut atro-brunneum; tegulae minutissime punctatae, nonnunquam in disco puncta pauca grossiora ferentes, aut plus minusve laeves, et parce obsoletim punctatae; clypeus aut duabus carinis longis, bene elevatis, conspiciendo instructus, aut obscurius tricarinatus ... 8
- Stigma alarum pallidum; tegulae grossissime et conspiciendo, saepe rugosim, punctatae; clypeus carina utrinque conspiciendo, bene elevata, carens (deflexione tamen clypei laterum marginem acutum nonnunquam formante) nec obscurius tricarinatus. 13
8. Alæ anteriores et posteriores atro-infuscae; abdominis segmentum 2 dorsale totum ferrugineum, aut nigrum fascia apicali flava aut aurantiaca ornatum 9
- Alæ haud atræ, anteriores solæ in parte costali atro-infuscae, cæteris partibus hyalinis aut leviter infumatis; abdominis segmentum secundum aliter picturatum 10
9. Alæ haud violaceo-colore conspiciendo nitentes; segmentum abdominis 2 dorsale totum ferrugineum aut opace aurantiacum *cognatus* Sm.
- Alæ conspiciendo violaceo-nitentes; segmentum abdominis 2 dorsale fascia apicali tantum ornatum *unifasciatus* Sm.
10. Clypeus utrinque fortiter longitudinaliter carinatus, carinis fortiter et acute elevatis (♀) 11
- Clypeus obscure longitudinaliter tricarinatus, inter carinam medianam et laterales depressus, apice leviter emarginato vix bidentato (♂) 12
11. Abdominis segmentum secundum fascia basali, latissima, pallide flava, postice late emarginata, ornatum ... *conspiciendus*, sp. n.
- Abdominis segmentum 2 pallide flavum, plagam magnam subtriangularem nigram includens *elegans*, sp. n.
12. Segmentum 2 dorsale abdominis subsanguineum, plaga basali nigra (haud ad segmentum medium extensa) notatum; segmentum primum spatio lunulato ejusdem coloris apicali ornatum *tricarinulatus*, sp. n.
13. Abdominis segmentum 2 dorsale ferrugineum aut aurantiacum, totum pallidum, triangulo basali nigro et brevi excepto. *tasmaniensis* Sauss.
- Abdominis segmentum 2 dorsale plaga nigra mediana, a basi ad medium aut post medium extensa, ornatum 14
14. Caput sulphureo-flavum, ocellis plaga nigra ovali circumdati. *flaviceps* Sauss.
- Caput nigrum, macula utrinque postoculari, et macula interantennali, flavis 15
15. Tegulae nigrae *habilis*, sp. n.
- Tegularum margo exterior pallidus *subhabilis*, sp. n.
16. Thorax totus niger; abdominis segmenta 2 basalia tota ferruginea *apicatus* Sm.
- Species aliter coloratae 17

17. Abdominis segmentum 2 dorsale pallide flavum, aut ochraceum, macula nigra basali triangulari ornatum, apice trianguli nigri fere ad medium segmentum extenso, segmentis sequentibus et margine primi posteriore cum secundo fere concoloribus; thorax niger, pronoto solo maculis flavescens ornato. *pallidus*, sp. n. 18
- Species colore præcedenti valde dissimiles 18
18. Pronotum, scutellum fere totum, postscutellum, tegulæ cum propodei lateribus, ochraceo-flava; abdominis segmentum primum eodem fere colore fasciatum, fascia media quadrato-emarginata; secundum nigrum, apice vix pallescente (♂). *insularis* Sauss. 19
- Species colore præcedenti valde dissimiles 19
19. Abdominis segmentum 2 ventrale post sulcum suum transversum in parte media peroblique aut convexim elevatum, et ibidem haud aut vix ad altitudinem, quam pars sua basalis, majorem surgens; clypeus emarginatus 85
- Abdominis segmentum 2 ventrale post sulcum suum transversum in parte media sæpissime fortissime (aut saltem distincte) supra partem suam basalem elevatum; aut si pars postsulcalis partem præsulcalem (sive basalem) altitudine haud superat, a sulco sat abrupte surgit pars posterior, et clypeus truncatus est 20
20. Abdominis segmentum 2 ventrale, post sulcum suum transversum, tantum ad partis basalis suæ altitudinem elevatum; clypeus semper truncatus 81
- Abdominis segmentum 2 ventrale, post sulcum suum transversum, sæpius fortissime supra partem suam basalem elevatum, aut semper distincte altius quam pars basalis ... 21
21. Clypeus (lateribus deflexis exceptis) usque ad basim perfecte deplanatus (nec concavus sive impressus) et parti frontis interantennali deplanatæ, quam perfectissime, adaptatus; postscutellum simplex, inerme 70
- Clypeus basin versus aut ubique plus minusve convexus aut rare impressus; si usque ad basim deplanatus, postscutellum medium tuberculatum aut spiniferum est 22
22. Clypeus sat fortiter emarginatus, et nonnullis in aspectibus paullo inter dentes laterales prominens, ita ut, plus minusve obscure, quasi tridentatus appareat 63
- Clypeus aliter formatus 23
23. Clypeus carinis acutis duabus elongatis longitudinalibus, bene exstantibus, præditus 62
- Clypeus haud ita carinatus, sed margines deflexi laterales nonnunquam aciem acutam formant 24
24. Postscutellum medium spina brevi aut tuberculo distincte armatum 65
- Postscutellum inerme 25
25. Tegulæ perconspicue grosse punctatæ, marginem versus anteriorem puncta hæc grossa ferentes; clypeus semper emarginatus 52
- Tegulæ sæpe minutissime punctatæ ex parte majore, aut fere læves, puncta majora marginem anteriorem versus conspicua rare ferentes, quo in casu clypeus truncatus est 26
26. Abdominis segmentum 2 dorsale in formam conicam fortissime et abrupte (oblique tamen) elevatum; clypeus truncatus ... 79
- Abdominis segmentum 2 dorsale nonnunquam fortiter convexim elevatum, sed haud vere conico-tuberculatum, aut si conicum, clypeus est emarginatus 27
27. Abdomen fasciis unicoloribus duabus (una in specie compluribus) flavis, sæpissime albido-flavis, rarius læte flavis, ornatum;

- fascia prima plerumque lineari, rarissime circiter partem segmenti dimidiam, desuper aspecta, occupante; fascia secunda haud majorem quam quintam partem segmenti secundi occupante; pronoto antice bimaculato, maculis a tegulis longissime remotis, propodeo nigro 23
- Abdomen aut aurantiaco, aut rufescente colore fasciatum; aut fascia una aut altera aut ambabus distinctissime bicoloratis; nonnullis in speciebus segmentum primum, desuper aspectum, totum aut fere totum est coloratum, propodeo nonnunquam haud toto nigro, maculis pronotalibus nonnunquam ad tegulas aut fere ad tegulas extensis 34 a
23. Species duabus fasciis abdominalibus ornata 29
- Species unica, fasciis compluribus albido-flavis ornata 33
29. Mesonotum in parte dimidia posteriore aut grosse aut densim et rugose punctatum; frons inter antennis maculata; antennæ ♂ 11-articulatae 30
- Mesonotum in parte posteriore haud grosse punctatum, punctis inter se remotioribus aut irregulariter dispositis; frons inter antennis nigra; antennæ ♂ 12-articulatae 34
30. Anguli laterales pronoti anteriores distincti, evidenter prominuli; mesonotum opacum, et cum scutello ubique quam densissime rugoso-punctatum. (Tegulae flavo-marginatae.)
emarginatus Sauss.
- Anguli laterales pronoti anteriores parum distincti, haud prominentes; mesonoti puncturatio minus densa quam in præcedente, punctis (nonnullis in partibus) inter se distinctis 31
31. Tegulae, ex magna parte aut totæ, testaceæ, haud flavo-notatae; abdominis segmentum primum postice angustissime lineariter fasciato, fascia ipsa haud vel sparsissime punctata.
(Abdomen in exemplis recentibus pilis longis ubique vestitum; ♂ segmentum ventrale apicale pilis sat longis erectis vestitum; ad basim suam utrinque pilis densis erectis præditum, his sæpe sub segmento præcedente abditis.) *parca* Sauss.
- Tegulae sæpe flavo-maculatae; abdominis segmentum primum postice minus anguste fasciatum, fascia ipsa punctis multis conspicue prædita 32
32. Abdominis segmentum tertium et sequentia (a latere visa) pilis erectis parce vestita; fascia flava segmenti primi antice media emarginata; ♂ segmentum ventrale abdominis apicale pilis erectis sat longis vestitum; ♀ incognita *lætus*, sp. n.
- Abdominis segmentum tertium et sequentia solam tomentosa; fascia flava primi haud antice emarginata; ♂ segmentum ventrale abdominis apicale pilis brevissimis vestitum; ♀ incognita *frater*, sp. n.
33. Clypeus leviter lateque emarginatus, albo-flavus, macula mediana nigro-signata; mesonotum dense distincteque punctatum, tegulis externe testaceis, postice flavo-notatis; alæ parum fortiter infuscatæ (♀) *ordinarius*, sp. n.
34. Abdomen fasciis duabus angustissimis flavo-albis; corpus totum pilis longis vestitum, forma graciliore; tegulae fere nigrae; abdominis segmentum primum haud fortissime transversum; clypeus aut truncatus aut vix evidenter emarginatus; antennæ ♂ 12-articulatae *punctulatus* Sauss.
- 34 a. Clypeus fortiter aut fortissime, levissime aut leviter emarginatus, emarginatus tamen 35
- Clypeus aut recte aut subrotundatim truncatus 73

35. Abdominis segmentum 2 dorsale (lateraliter visum) pilis longioribus erectis, sat numerosis, conspicue vestitum; pronotum antice binotatum, propodeo nigro, puncturatione mesonotali confusa, leviter impressa. (Tegulae testaceae; anguli pronoti humerales parum distincti.) 36
 Abdominis segmentum secundum pilis brevibus erectis sparsim vestitum, aut fere nudum; pronotum nonnullarum specierum ad tegulas aut longe has versus coloratum; propodeo nonnullarum colore signato 37
36. Abdominis segmentum primum fascia distincte bicolorata semper ornatum, fasciae margine anteriore haud aut vix emarginato *vulpinus* Sauss.
 Abdominis segmentum primum fascia saepissime fere unicolore ornatum, fascia ipsa, quam praecedentis, semper latiore, et antice conspicue emarginata *vulpinus excisus*, st. n.
37. Abdominis segmentum secundum nigrum, haud fasciatum 52
 Abdominis segmentum secundum fascia colorata ornatum 33
38. Abdominis segmentum primum et secundum (aut ex his unum) fascia distincte bicolorata ornata, aut segmentum primum, desuper aspectum, fere totum rubricolor est, margine postico flavo 39
 Abdominis nec segmentum primum nec secundum coloribus duobus variegata 43
39. Anguli humerales pronoti anteriores distincte prominentes.
 (Tegularum margo exterior albidus aut flavescens; tibiae posteriores ferrugineae aut rufescentes, macula elongata albida ornatae.) *simulator*, sp. n.
 Anguli humerales pronoti anteriores aut fere recti aut obtusi, haud producti 40
40. Tegulae nitidissimae, perpolitae; parte anteriore excepta, laevissimae, haud subtilissime punctatae 41
 Tegulae in parte exteriori subtilissime punctulatae 42
41. Clypeus ♀ laevis, nitidus, glaber, distincte, remote punctatus; tegulae (ex magna parte) flavescentes aut albidae; mesopleura maculata; tibiae intermediae et posticae longe albido-maculatae, tarsi rufescentibus.
 ♂ tibiis omnibus, metatarsisque intermediis et posterioribus supra albidis *donatus*, sp. n.
 Clypeus ♀ conspicue minute pubescens, apice (quodam in aspectu) elevato, grossius subdensim punctatus; tegulae nigricantes; mesopleura nigra; tibiae posteriores albido-flavo notatae, tarsi nigrescentibus. ♂ ignotus ... *despectus*, sp. n.
42. Abdominis segmentum primum, desuper visum, rubricolor, colore hoc antice nigro-emarginato, postice anguste flavo-marginato; mesonotum profunde, aequaliter, sat grosse punctatum; clypeus (♀) antice distincte marginatus. *tricolor*, sp. n.
43. Abdominis segmentum 2 dorsale valde fortiter a basi conico-elevatum; hoc, cum primo, late fasciato, fascia prima partem segmenti (desuper aspecti) maximam occupante, antice triangulariter nigro-emarginata. Maculae pronotales ab angulis posterioribus dorsalibus longe remotae *roseotinctus*, sp. n.
 Abdominis segmentum secundum haud distincte conico-tuberculatum 44
44. Pronotum usque ad angulos dorsales posteriores coloratum ... 45
 Maculae pronotales a tegulis longe remoti 48
45. Segmenta nonnulla abdominis apicalia, et dorsalia et ventralia, nigra 46
 Segmenta abdominalia omnia colorata 47
46. Scutellum sat convexum, quam densissime rugoso-punctatum; thorax post partem pronotalem niger (♂); ♀ incognita. *aerophilus*, sp. n.

- Scutellum læve, parum convexum, haud densim ubique punctatum, punctis interstitialibus minutis distinctis; scutellum, postscutellum et propodeum late aurantiaco-ornata ... *placens*, sp. n.
47. Clypeus antice distinctissime marginatus; species magna et robusta *eriurgus* Sauss.
48. Pronotum haud aut indistincte marginatum ad truncationem suam anteriorem, margine acute elevato carens 49
 Pronotum (media parte excepta) fortiter acute marginatum ad truncationem suam anteriorem 50
49. Abdominis segmentum tertium et sequentia, et dorsalia et ventralia, bene colorata, colore cum fascia segmenti secundi fere concolore. Clypeus ♂ et ♀ antice distinctissime elevato-marginatus.
 (Picturatio abdominis segmenti 2 dorsalis pervariabilis, nonnunquam colore rufo aut rufo-aurantiaco fasciam apicalem tantum formante, nonnunquam totum segmentum, triangulo nigro basali excepto, occupante.)
argentifrons Sm.
- Abdominis segmentum tertium et sequentia haud bene colorata, marginibus apicalibus tantum obscure pallidioribus. Clypeus ♂ haud marginatus, quam in præcedente fortius emarginatus; abdominis segmentum primum multo minus fortiter transversum, secundi fascia apicalis haud aut parum ampliata; ♀ incognita *subobscurus*, sp. n.
50. Maculae pronotales magnæ, scutello et postscutello maculatis; abdomen nigrum, fasciis duabus parum latis tantum ornatum, secunda haud conspicue utrinque ampliata, latera versus paullatim latiore (♀) *simplex*, sp. n.
51. Species gracilis et elongata, alis explicatis fere hyalinis; pronotum, tegulae, scutellum, postscutellum, propodeum, et abdominis segmentum primum dorsale (desuper aspectum) rufa, aut ferruginea. Abdominis segmentum primum dorsale angustum, subcampanuliforme, lateribus secundi subparallelis, basin juxta inflexis *minus*, sp. n.
52. Thorax (mesonoto nigro aut tantum bimaiculato excepto) et segmentum primum abdominale in aspectu dorsali ubique rufa aut aurantiaca, cæteris segmentis abdominalibus nigris. Species aliter coloratae, abdominis segmento secundo semper colore ornato 54
53. Species parva, angustula, colore rubro ornata, alis hyalinis, parte subcostali perpaullo infuscata *imitator*, sp. n.
 Species sat robusta, aurantiaco-decorata, alis infumatis, parte subcostali nigrescente *nautarum* Sauss.
54. Species, quarum propodeum nigrum est, pronoto antice maculato, maculis a tegulis longe separatis 55
 Species, quarum propodeum colore est signatum, pronoti colore ad tegulas aut prope ad tegulas extenso 59
55. Abdominis segmentum secundum postice fere recte aurantiaco-fasciatum, sequentibus nigris.
 (Pronotum antice fere recte truncatum (sive levissime concavum), angulis lateralibus distinctis, bene elevato-marginatum; clypeus levissime emarginatus; abdominis segmentum secundum densissime, grosse et conspicue punctatum.) *debilis*, sp. n.
- Abdominis segmentum secundum postice latissime rufo aut aurantiaco-rufo colore fasciatum, fascia utrinque valde ampliata, plus minus angulariter profunde (nonnunquam profundissime) nigro-emarginata, segmentis sequentibus coloratis 56
56. Abdominis segmentum secundum, latera sua versus, quam densissime grossim rugoso-punctatum 57

- Abdominis segmentum secundum, margines versus laterales, distincte punctatum, scilicet punctis bene separatis 58
57. Abdominis segmenti 2 dorsalis margo posterior (desuper inspectus) utrinque fortiter postice productus, angulis acutis prominentibus conspicue munitus (♂) *eugonias*, sp. n.
- Abdominis segmenti 2 dorsalis margo posterior utrinque distincte angulatus, angulis ipsis per paullo prominentibus (♂).
microgonias, sp. n.
58. Abdominis segmentum primum basisque secundi pulchre pubescentia argentea utrinque ornata, propodei lateribus similiter vestitis; fascia abdominalis segmenti secundi ad, aut paullo ante, medium utrinque producta (♂) *argyrias*, sp. n.
- Abdomen haud pubescentia argentea ornatum; fascia abdominalis segmenti 2 fere ad basim utrinque antice producta (♂) *eucilias*, sp. n.
59. Abdominis segmentum 2 ventrale fortissime post sulcum supra partem basalem suam abrupte elevatum, truncatione summa antice subproducta et prominula, tuberculiformi 60
- Abdominis segmentum 2 ventrale post sulcum transversum distincte, sed haud fortissime, supra partem suam basalem elevatum, truncatione summa haud subangulatum antice producta et tuberculiformi 61
60. Segmentum abdominale tertium cum sequentibus nigrum; species magna (♂) *occidentalis*, sp. n.
- Segmentum tertium et sequentia aurantiaco-ornata; species magnitudine mediocris (♂ ♀) *orientalis*, sp. n.
61. Abdominis segmentum 2 ventrale nigrum, postice aurantiaco-marginatum, post truncationem leviter impressum (♂).
solitarius, sp. n.
- Abdominis segmentum 2 ventrale colore flavo et rufo-brunneo ornatum, nulla parte nigra, post truncationem valde late depressum, ita ut truncatio summa incrassationem elevatam, plerumque curvatam, præbeat (♂) *hilaris*, sp. n.
62. Thorax, pronoto excepto, niger; abdominis segmentum secundum dorsale flavum, colore flavo maculam magnam nigram subtriangularem includente. Postscutellum tuberculatum.
maculiventris SAUSS.
- Thoracis pars post-pronotalis flavo-maculata; abdominis segmentum 2 nigrum, postice flavo-fasciatum, fascia nonnunquam utrinque fortiter basim versus producta; postscutellum inerme *bicarinatus*, sp. n.
63. Abdomen fasciis 2 abdominalibus flavis aut sulphureis, angustis, haudquaquam dilatatis, tantum ornatum; pronotum antice et scutellum maculis duabus, pallide flavis, ornata.
(Antennæ ♂ 12-articulatæ.) *optabilis*, sp. n.
- Picturatio cum colore valde diversa 64
64. Alæ atræ, ubique (in quodam aspectu) violaceo-tinctæ; abdominis segmentum 2 latissime fasciatum, fascia antice angulato-emarginata. Thorax exempli unici totus niger, postscutello tuberculo debili munito (♀) *atripennis*, sp. n.
- Alæ fusco-nitentes (subæneo-micantes); abdominis segmentum 2 fascia apicali aurantiaca, fere simplici, ornatum; thorax, mesonoto excepto, ubique aurantiaco-ornatus, postscutello haud tuberculato (♀) *aureocinctus* GUÉR.
65. Clypeus profundissime emarginatus, emarginatione multo, quam semicirculus, profundiore, dentem utrinque longum et obtusum formante 69
- Clypeus haud ita emarginatus 66
66. Thorax (mesonoto excepto) ubique rubro-decoratus; abdominis segmentum primum rubrum, basali parte nigra, segmentis cæteris nigris *dentiger*, sp. n.
- Species a præcedente colore valde diversæ 67

67. Species aurantiaco-ornatus; scutellum macula magna trans-versa, vix aut hand divisa, ornatum (♂) *infinus*, sp. n.
Species una aurantiaco-ornata, altera colore flaviore, vix aurantiaco, decorata; scutellum maculis duabus, late separatis, ornatum (♀) 68
68. Fascia abdominalis prima fere simplex, lata; secunda late emarginata, latera versus ante medium segmentum basim versus producta; propodeum nigrum (♀) *summus*, sp. n.
Fascia abdominalis prima antice conspicue emarginata; secunda fere simplex, latera versus perpaullo ampliata (♀).
..... *medius*, sp. n.
69. Mesonotum solum nigrum, partibus cæteris thoracis dorsalibus aurantiaco-decoratis; abdominis segmentum secundum fascia apicali, vix aut perpaullo latera versus dilatata, ornatum *eustomus*, sp. n.
Thorax totus, duabus maculis pronotalibus exceptis, niger; abdominis segmentum 2 fascia latissima, antice emarginata, utrinque ante medium segmentum producta, ornatum (♀).
..... *pseudochromus*, sp. n.
70. Clypeus profundissime emarginatus, emarginatione semicirculum formante, aut semicirculo profundiore; frons capitis ordinaria 71
Clypeus late, leviter emarginatus; frons capitis duabus lineis lævibus, curvatis et elevatis, conspicue munita 72
71. Species parva, sed sat robusta; abdominis segmentum 2 dorsale fascia, utrinque valde ampliata, ornatum; pronotum solum maculatum, thoracis partibus cæteris nigris (♀).
(Clypeus colore variabilis, aut totus niger aut rufo-maculatus.) *vulneratus* Sauss.
Species magnitudine mediocris; abdominis segmentum secundum, cum sequentibus, nigrum; thorax, mesonoto excepto, rufo-ornatus (♀) *fallax*, sp. n.
72. Species aurantiaco-ornata; abdominis segmentum primum fascia lata aurantiaca, haud aut vix emarginata, ornatum; scutellum, margine posteriore excepto, aurantiacum (♀).
..... *brisbanensis*, sp. n.
Species flavo-ornata; vix aurantiaca; abdominis segmentum primum fascia flavescente, antice conspicue emarginata, ornatum; scutellum maculis duabus, bene separatis, signatum (♀) *mackayensis*, sp. n.
73. Species maxima (14-15 mm. ad apicem seg. 2 abdominalis); abdominis segmentis 2 basalibus aurantiaco-fasciatis, fasciis hand latis, secunda simplici, haud aut vix latera versus dilatata, segmentis sequentibus nigris. Tibiæ nigrae; posteriores macula rufa aut flava signatae; intermediae et posteriores (nisi attritae) pilis longis sparsim vestitae *princeps*, sp. n.
- Species aut præcedente multo minores, aut colore dissimiles 74
74. Segmenta 2 basalia abdominis fasciata, cæteris nigris; species graciles plus minusve paralleliformes 75
Segmenta abdominis complura aut omnia colorata; species hand graciles 77
75. Pronotum colore rufo fere ad tegulas decoratum; clypeus ♀ rufo-maculatum *commutatus*, sp. n.
Pronotum aut nigrum aut maculis parvis duabus aurantiacis aut rufis ornatum; clypeus ♀ niger 76
76. ♂ abdominis segmenta 5 apicalia pilis erectis sat conspicue vestita; tibiæ utriusque sexus nigrae, basi et apice nonnunquam pallescentibus.
(♂ clypeus flavus, ♀ niger.) *suboloris*, sp. n.
♂ abdominis segmenta apicalia pubescentia minuta depressa tantum vestita; tibiæ omnes cum tarsis rufescentes.
..... *oloris*, sp. n.

77. ♂ ♂ *Clypeus flavus* 78
 ♀ ♀ *Clypeus totus, aut ex parte magna, niger* 80
78. *Clypeus* in parte sua media longitudinaliter impressus, utrinque carinis subobsoletis (rotundatis nec acute elevatis) parallelis instructus; antennæ (ut opinor) tantum 10-articulatæ, articulis 2 apicalibus minutissimis. Cellula 2 cubitalis haud petiolata (an semper?) Segmentum abdominis ventrale 7 sat fortiter convexum *odyneroides*, sp. n.
Clypeus more solito formatus, convexus; antennæ 12-articulatæ, fortiter clavatæ, articulis 4 ultimis parvis sed distinctis; segmentum abdominis ventrale 7 deplanatum.
 (Abdominis segmentum 2 dorsale fortiter elevatum pilisque longis erectis vestitum.) *viduus*, sp. n.
79. Abdomen fasciis duabus, haud utrinque ampliatis, ornatum, prima angustissima, secunda haud lata; clypeus utrinque longitudinaliter flavescens aut albido-flavus. Abdominis segmentum 2 dorsale pilis erectis longioribus vestitum. *tuberculatus* Sauss.
80. Tibiæ tarsique rufescentes; cellula 2 cubitalis petiolata.
 (Color variabilis; abdominis segmentum secundum late ferrugineo- aut aurantiaco-brunneo-fasciatum, fascia nonnunquam basim segmenti utrinque attingente.)
carinatus Sm. (= *lateritius* Sauss., var.?)
 Tibiæ tarsique nigrescentes, his plus minusve atro-brunneis, articulis nonnullis testaceis: tibiæ posteriores, basim versus, in parte interiore, rufescentes. Cellula 2 cubitalis haud petiolata (an semper?). Segmenta abdominalia fasciis ferrugineis aut brunneo-aurantiacis ornata, fasciis apicalibus, quam basales, pallidioribus.
 (Nescio quomodo sint variabiles picturatio et alarum neuratio.) *odyneripennis*, sp. n.
81. Abdominis segmentum primum fascia sat lata, unicolore, rubra, antice angulariter nigro-emarginata, ornatum (♀). *mutabilis*, sp. n.
 Abdominis segmentum primum fascia flava, albido-flava, aut flavo-aurantiaca anguste marginatum, aut fascia latiore, conspiciens bicolorata, decoratum 82
82. Abdominis segmentum primum fascia apicali unicolore decoratum 83
 Abdominis segmentum primum fascia conspiciens bicolor ornatum.
83. Mesopleura tegulas juxta sæpe flavo-notata; abdominis segmentum primum transversim parum evidenter depressum; species evidenter minor:
 a. Mesopleura flavo-notata, abdominis fasciæ (aut prima) pallide flavescens aut albido-flavæ (♀). *plebeius*, sp. n.
 b. Mesopleura haud notata; abdominis fasciæ-flavæ ... var. *a*.
 Mesopleura haud flavo-notata; abdominis segmentum primum transversim sat conspiciens depressum; species evidenter major, fasciis abdominalibus aurantiaco-flavis, prima, quam in specie præcedente, latiore et sat copiose punctata (♀).
subplebeius, sp. n.
84. Species parva, angusta; antennæ ♀ fortiter ♂ fortissime clavatæ, his 12-articulatis, articulis tribus apicalibus uncum brevem formantibus *debilitatus*, sp. n.
85. (Hac in sectione maris (ubi mas est cognitus) antennæ tantum 10-articulatæ sunt, articulis duabus apicalibus minimis, intra articulum octavum receptis.)
 Abdominis segmentum primum, parte nigra excepta, unicolor, aut flavum aut aurantiacum aut subrufum 87
 Abdominis segmentum primum, parte nigra basali (si color niger adest) excepta, colore rufescente et flavo distincte coloratum 86

86. Clypeus ♂ ♀ kete flavus : macula capitis ocellaris ♀ utrinque ad, aut fere ad antennarum insertionem utrinque producta.
multicolor, sp. n.
 Clypeus ♀ rufescens aut ferrugineus ; macula capitis ocellaris antice emarginata, parte utrinque producta ab insertione antennarum longe remota. ♂ mihi incognitus... *brunneus* Sauss.
87. Abdominis segmentum secundum juxta apicem transversim impressum, ita ut incrassatio, distincte subelevata, formetur, incrassatione postice abrupte verticali, haud obliqua, margine apicali deplanato lato. Color niger, rufo-decoratus (♀).
anostreptus, sp. n.
 Abdominis segmentum secundum juxta apicem plus minus incrassatum, incrassatione haud antice elevata, et postice plus minus oblique truncata ; partes coloratæ plerumque aurantiacæ aut flavæ aut plus minus rufo-aurantiacæ..... 88
88. Clypeus ♀ aurantiaco-rufus ; oculi usque ad clypeum colore marginati ; maculi pronotales fere ad angulos dorsales posticos extensi ; species nigra, rufo-ornata *dyscritias*, sp. n.
 Clypeus ♀ niger, lateribus deflexis flavescentibus, apice rufescenti ; oculi haud usque ad clypeum marginati ; pronotum antice maculis triangularibus ornatum ; species nigra, flavo-ornata *xanthochromus*, sp. n.

Divisio secunda.

1. Thorax et abdomen bicolorata, nigra et rufa sive ferruginea ... 14
 Corpus nonnulla in parte semper flavo aut albedo aut aurantiaco-flavo colore ornatum, sæpe tricoloratum 2
2. Tegulæ (parte interiori thoracem juxta excepta) ex magna parte politæ, impunctatæ aut fere impunctatæ, sculptura nulla aut vix videnda, puncta rare hic illic disposita nonnunquam ferentes 3
 Tegulæ plerumque subtilissime sed distinctissime in parte exteriori punctatæ, nonnunquam sat copiose et grosse punctatæ, aut puncta grossa et minuta intermixta ferentes... 8
3. Abdominis segmentum primum supra rubens, margine postico flavo ; propodeum nigrum *picteti* Sauss.
 Abdominis segmentum primum aliter coloratum ; propodeo bicolorato 4
4. Abdominis segmentum secundum postice fascia flavo-aurantiaca lata ornatum, partem, majorem quam quartam, segmenti occupante, ad basim utrinque conspicue aurantiaco-maculatum.
 (Clypeus truncatus aut parum emarginatus.) . *constrictus*, sp. n.
 Abdominis segmentum secundum nonnunquam haud fasciatum, aut fascia pallide flava, aut obscuricolore ornatum ; si aurantiaco-fasciatum, fascia minus lata est, haud quartam segmenti partem occupans.
5. Color flavus superficiem totam posteriorem segmenti primi occupans, colore nigro, si adest, superficiem declivem solam occupante 6
 Abdominis segmentum primum fascia apicali tantum ornatum. 7
6. Tegulæ ♀ haud flavo-maculatæ, feminae et maris punctis nonnullis grossioribus et profundioribus signatæ ... *mesochlorus*, sp. n.
 Tegulæ feminae flavo-maculatæ, feminae et maris punctis minus grossis et profundis signatæ *mesochlorus mesochloroides*, st. n.
7. Abdominis segmentum 2 ventrale medium haud impressum ; ♀ clypei apex late leviterque emarginatus ; mesonotum duabus lineis elongatis subparallelis ornatum ; ♂ incognitus.
 (Abdominis color atro-brunneus, segmentis fasciis albidoflavis ornatis.) *darwinianus*, sp. n.

- Abdominis segmentum 2 ventrale post sulcum transversum conspicue impressum, ita ut truncatio summa rotundatim elevatur (♂).
- (a) Thorax nigrum, flavo-notatum *comptus*, sp. n.
 (b) Pronotum rufum, flavo-notatum, mesonoto medio rufo. *comptus*, var. *rubescens*, n.
8. Abdomen brunneum, rufo-brunneum aut atro-brunneum, et colore albedo aut flavo-albedo variegatum 9
 Abdomen nigrum, colore sulphureo, flavo aut aurantiaco variegatum 10
9. Tegulae subtilissime ubique punctatae; puncta nonnulla majora sed levissime impressa adsunt; abdominis segmentum 2 dorsale maculis basalibus carens, aut his minimis *alexandriae*, sp. n.
 Tegulae subtilissime punctatae et etiam punctis grossioribus, et, quam in precedente, majis conspicuis, signatae; abdominis segmentum 2 dorsale maculis duabus, conspicuis, basalibus ornatum *arenicola*, sp. n.
10. Clypeus truncatus aut vix emarginatus; ♂ tegulae fere ubique grosse et conspicue punctatae. ♀ incognita *simillimus*, sp. n.
 Clypeus distincte, sed leviter, emarginatus; tegulae minutissime copiose punctatae, punctis grossioribus inter punctula minuta nonnunquam interspersis 11
11. Abdominis segmentum 2 basium fasciae evidenter bicolores, antice aut aurantiacae aut rufescentes, postice flavescences aut albescentes 12
 Abdominis segmentum secundum plerumque nigrum, aut postice tantum piceo-marginatum, aut fasciam incompletam habens; primum in aspectu dorsali totum (aut fere totum) flavum, aut aurantiacum, haud bicoloratum 13
12. Femora posteriora ubique aut ex magna parte fulvescentia; species facie sua et forma cum finitimis congruens:
 a. Stigma lucide flavescens *synchromus*, sp. n.
 b. Stigma obscure flavescens aut atro-suffusum var. *a*.
 Femora posteriora nigricantia, apicibus plus minus rufescentibus; species elongata, angustissima, abdominis segmento secundo plus, quam solito, elongato et angusto.
 (Stigma atro-brunneum aut nigrescens.) *leptias*, sp. n.
13. Pronotum ♂ totum flavum aut subaurantiacum; alarum stigma atrum.
 (Abdominis segmentum primum supra aurantiaco-flavum, secundum fascia imperfecta apicali, duabusque maculis parvis subbasalibus, vix conspicuis, ornatum; antenarum flagellum nigrum, apice extremo rufescente. Picturatio segmenti 2 abdominis an constans?) ♂.
 *ignotus*, sp. n.
- Pronotum ♂ et ♀ haud totum flavum, nonnunquam antice flavo-notatum; alarum stigma lucide flavum.
 (Abdominis segmentum primum supra flavum, secundum nonnunquam totum nigrum aut margine apicali piceo aut rufescente; pronotum colore variabilis, supra rufum aut nigrum, aut rufo-marginatum, nonnunquam antice ornatum maculis duabus distinctis flavis.) ... *icaroides*, sp. n.
14. Tegulae ubique copiose, subtilissime punctatae; species major.
 *mimus*.
 Tegulae conspicue grosse punctatae, inter puncta nitida, punctulis minutis, vix aut haud discernendis *imitator*.

1. PARALASTOR (Paralastoroides) CLOTHO Lep.

Distinct from all other species by the suture of the first abdominal segment and by the coloration. I have not seen this species, and I do not know whether Saussure saw more than a single example. He says that the suture is "more or less distinct."

Hab. Australia.

2. PARALASTOR SAUSSUREI, sp. n.

♀. Nigra, fronte interantennali rufo-punctata, capitis vertice utrinque minute flavo-notato; abdominis segmento secundo, triangulo elongato nigro mediano excepto, cum sequentibus, ferrugineo, aut plus minus aurantiaco. Clypeus nitidus, haud densim, sed plus minus strigose, punctatus, apice distincte, levius emarginato. Frons capitis grosse et distincte punctata, linea laevi, semicirculari, ocellum anteriorem includente, instructa. Capitis vertex et thorax densissime rugoso-punctati, postscutello medio elevatulo, sive tuberculato, et, cum propodeo, opaco et multo, quam scutellum, subtilius sculpturato. Tegulae fortiter conspicue punctatae. Abdominis segmentum primum, pars secundi dimidia basalis, partes frontis capitis orbitales, et basis et latera flexa clypei, albido-tomentosa, partibus abdominis caeteris aureo-tomentosis. Alae superiores fortiter infuscae, et caeruleo-nitentes. Segmentum abdominis 2 ventrale post sulcum valde fortiter elevatum, elevatione summa prominente. Long. a fronte usque ad apicem segmenti 2 abdominis 15 mm.

Hab. North Queensland (*Dodd*).

3. PARALASTOR INFERNALIS Sauss.

The band of the second abdominal segment varies in colour from pale orange-yellow to deeper orange, and is sometimes angulately sometimes roundly emarginate. The facial markings of the male vary, the clypeus sometimes being wholly yellow, sometimes only yellow basally, with intermediate conditions. The *sinus* of the eyes is sometimes yellow, the scape in front and a medio-frontal spot probably always so. The pronotum is usually spotted with yellow, more rarely black. Three apical joints of the antennae small, but distinct. Tegulae with conspicuous, deep, coarse punctures.

Hab. Cairns (N. Queensland) and Port Darwin. Twenty-four examples examined.

4. PARALASTOR RUFIPES, sp. n.

Agrees generally in form and in sculpture with *P. infernalis*, but is at once distinguished by the red legs and the narrower apical band of the second abdominal segment, which is only a little dilated at the extreme sides. The postscutellum is without the distinct tubercle of *infernalis* ♀, in which species it may be

obscure in the male, but is well developed in the other sex. Size of *infernalis*.

Hab. North Queensland (*Dodd*), 1 ♀.

5. PARALASTOR FRATERNUS Sauss.

The male has the clypeus (at least for the most part), the frontal spot, and the front of the scape of the antennæ orange or yellowish orange. The tegulæ are for the most part very minutely punctured and clothed with very short hairs or tomentum.

Hab. The single male in the Oxford Museum is from New South Wales, the female type in the British Museum has no special locality assigned to it.

6. PARALASTOR CONSPICUUS, sp. n.

♂. Niger; clypeus, macula elongata frontalis huic adjuncta, articulus antennarum primus antice, maculaque 2 pronotales pallide flava, aut albido-flavescentia. Abdominis segmentum secundum fascia lata pallida basali, postice profunde triangulariter emarginata, et antice plus minus nigro-emarginata, ornatum. Clypeus profundissime emarginatus. Frons capitis ante ocellum anteriorem grosse punctata, punctis inter se distinctis. Anguli pronotales prominuli. Mesonotum sat grosse et distincte punctatum, exemplorum recentium dense nigro-tomentosum, pilisque erectis brevioribus subpallidis vestitum. Scutellum tuberculo prominente munitum, propodeo antice grosse punctato. Tegulæ dense et minutissime ex parte majore punctatæ, punctis magnis nonnullis præsentibus. Abdominis segmentum primum fortiter crebre punctatum, punctis sæpe sub tomento denso abditis; segmentum 2 ventrale post sulcum valde fortiter elevatum, elevatione summa prominente; segmentum 7 ventrale pilis erectis minus brevibus vestitum. Antennarum articuli 3 ultimi minimi. Alæ, costali parte excepta, hyalinæ. Long. 11-12 mm.

Hab. North Queensland, Cairns district (*Dodd*). Five examples.

The sculpture of the tegulæ, as in *fraternus*, is quite different from that of *P. infernalis* and its allies, the coarse punctures being altogether confined to their inner half (or almost so), the outer part bearing the very fine puncturation.

7. PARALASTOR DUBIOSUS, sp. n.

♂. Hardly differs from *P. conspicua* in structure, and is probably only a race of that species. The second abdominal segment is entirely pale, or has a more or less extensive median longitudinal dark marking. The silvery tomentum, that fills the ocular sinus and extends down over the deflexed sides of the clypeus, is more dense and conspicuous and the sculpture of the latter beneath it is somewhat changed in accordance.

This form varies much in detail of colouring, as shown partly in the table of species above. In one example the pronotal spots

are extremely small, while in another they form a broad band, slightly interrupted in the middle.

Hab. Queensland, Mackay (*Turner*), 5 ♂; Queensland, from E. Saunders's collection, 2 ♂.

8. PARALASTOR COGNATUS Sm.

This species is entirely distinct from and not closely allied to *P. fraternus*, which it resembles in colour, and of which Smith thought it might be the male. Its comparatively slightly emarginate, bicarinate clypeus distinguishes it at once.

Hab. Doro (*Wallace*); type in the Oxford Museum.

9. PARALASTOR UNIFASCIATUS Sm.

Clypeus formed as in *P. cognatus*; the tegulæ shining, with the minute puncturation not, or barely at all, discernible, whereas in *cognatus* their surface is nearly dull, and there is a copious though excessively fine puncturation.

Hab. Aru (*Wallace*); type in the Oxford Museum.

10. PARALASTOR CONSPICIENDUS, sp. n.

♀. Nigra; clypei pars basalis et macula interantennalis, nonnunquam sinus ocularis, macula magna utrinque postorbitalis, pronoti margo anterior late, fasciaque lata basalis segmenti secundi abdominalis, postice emarginata, flava aut albido-flava. Clypeus late lunulato-emarginatus, utrinque carina, bene elevata, acute munitus. Frons capitis dense aureo-tomentosa, distincte fortiter punctatus, tomento remoto. Anguli pronotales distincti, haud prominuli. Mesonotum tomentosum, et pilis erectis sat crebre vestitum, postscutello haud evidenter tuberculato. Tegulæ, marginem exteriorem versus, minutissime punctulatæ, ibique haud aliter punctatæ. Alæ, costali parte atro-fusca excepta, fere hyalinæ. Abdominis segmentum 2 ventrale fortissime abrupte supra sulcum elevatum, elevatione summa antice prominula. Long. 12-13 mm.

Hab. Queensland, Inkerman, near Townsville (*Stalker*), 1 ♀; Townsville, 1 ♀ (*Dodd*); Queensland, 1 ♀, from E. Saunders. All in the British Museum Collection.

11. PARALASTOR ELEGANS, sp. n.

♀. Colore et picturatione *P. maculiventris* Sauss. (Et. Masar. et Suppl. pl. xvi. f. 3).

This species differs from Saussure's description of *P. maculiventris* only as follows:—The clypeal emargination between the teeth is not straight, but slightly rounded; there is only a yellow spot on the inner orbits, the head is very densely clothed with golden tomentum, not blackish. The fascia of the first abdominal segment is incomplete, failing before the lateral angles.

The clypeus has two very strongly raised longitudinal carinae, not mentioned by Saussure, but which, as Mr. Meade-Waldo has kindly informed me, are present in the type, the face of which is asymmetrical or somewhat deformed. In most respects *P. elegans* resembles *P. conspiciendus*, apart from the quite different colour-pattern, but the clypeus is much shorter and the propodeum shorter and more rounded, less quadrate.

Hab. N. Queensland (*F. P. Dodd*), 2 ♀.

12. PARALASTOR TRICARINULATUS, sp. n.

♂. Niger, clypeo, maculaque elongata interantennali, huic adjuncta, flavis, macula parva verticis postoculari utrinque aurantiaca. Abdominis segmentum primum spatio lunulato apicali rufo-decoratum, secundum ferrugineo-rufum, macula basali, haud ad medium segmentum extensa, nigra, segmentis sequentibus cum tibiis tarsisque aurantiacis aut ferrugineis.

Clypeus leviter emarginatus, apice lato, anguste nigro-marginato, evidenter, sed parum acute, longitudinaliter 3-carinatus. Frons capitis rugoso-punctata. Pronoti truncatio vix marginata. Mesonotum grosse et rugose punctatum. Scutellum postice conspicue foveatum. Postscutellum medium subproductum sive subtuberculatum. Abdominis segmentum primum transversim subconspicue impressum, puncturatione sua, quam mesonotali, minus grossa; segmentum 2 ventrale post sulcum abrupte fortiter elevatum, elevatione summa paullo rotundatim prominula, grossim et copiose punctatum; segmentum 7 ventrale pilis erectis sat longis conspicue vestitum, medium longitudinaliter sulcatum. Alæ, costali parte excepta, subhyalinæ.

Long. 13-14 mm.

Hab. Victoria (*C. French*), 1 ♂.

13. PARALASTOR TASMANIENSIS SAUSS.

This species was described by Saussure from a headless male, and is said by him to inhabit Tasmania, but I have only seen Queensland examples.

In the male the clypeus, medio-frontal spot, and front of the scape of the antennæ and the postocular spots of the vertex are yellow, the latter sometimes redder or orange. In the female the apical portion of the clypeus is black, the rest orange or ferruginous brown. The scape of the antennæ black or largely ferruginous or reddish brown in front. The tegulæ are very coarsely punctured, the punctures extending to (or almost to) the outer margin. The apical ventral segment of the male is wide and widely impressed, and bears only very short hairs, as do the preceding segments.

Hab. Queensland, Brisbane; in Oct., Jan., Dec., and March (*Hacker*). I suspect that the locality (Tasmania) given by Saussure is erroneous.

14. *PARALASTOR HABILIS*, sp. n.

Abdomen nigrum, segmento secundo pallide flavo, macula magna subtriangulari nigra, ad aut post medium segmentum extensa, signato. ♂ clypeus, macula interantennalis, articulus antennarum primus antice, maculæ parvæ verticis postoculares, maculæ pronotales (nonnunquam fasciam fere integram formantes), pallide flava; ♀ clypeus antice niger, postice aurantiacus: antennarum articulus primus (basi extrema pallida excepta) niger. Alæ hyalinæ, costali parte infuscata, plus minus flavescente. Tarsi posteriores, articulo ultimo excepto, nigri aut atro-fusci; tibiæ aut nigricantes aut rufescentes.

Clypeus distincte, nec profunde emarginatus; frons grosse punctata. Mesonotum, quam densissime, rugoso-punctatum, parum dense pilosum; tegulis nigris, grosse usque ad marginem anteriorem punctatis; postcutellum haud aut vix tuberculatum. Abdominis segmentum primum pernigrum, dense punctatum, inter puncta quasi subtilissime granulatum, secundi pars nigra similiter sculpturata, sed remote punctata; segmentum 2 ventrale post sulcum fortissime abrupte elevatum, elevatione summa prominula; septimum segmentum ♂ ventrale latum, lateque impressum, parum conspicue pilosum, pubescentia brevi vestitum.

Long. 11–13 mm.

Hab. North Queensland (*Dodd*); 2 ♂, 1 ♀.

15. *PARALASTOR SUBHABILIS*, sp. n.

Præcedenti simillimus, ut apparet, paullo gracilior, alarum parte costali magis flavescente, et ibidem venis pallidioribus. Tarsi posteriores ubique, aut ex majore parte, pallidi. Tegulæ, marginem anteriorem versus, pallidæ. Segmentum tertium abdominale plerumque flavo-marginatum, aut plus minusve pallidum, rare nigricans, sequentibus segmentis etiam sæpe pallidis.

Possibly only a race of the preceding, but superficially quite distinct. The pattern of the second abdominal segment is different from that of *habilis*, the black median marking narrower and not of the same subtriangular form. Unless it has become changed *post mortem*, the ground-colour is also different, the yellow more ochreous, or in some examples approaching orange, not pale clear yellow or whitish yellow. The colour of the clypeus in the female is not constant; sometimes it is nearly entirely yellow, sometimes black on the apical part.

Hab. Queensland, Mackay, 6 examples (*Turner*); Queensland, 1 ♂ from E. Saunders's collection.

16. *PARALASTOR FLAVICEPS* Sauss.

I have not examined the type of this species, but should the tegulæ have a very coarse puncturation extending to the outer margin, then it would be placed in my table next to *habilis* and

subhabilis, being easily distinguished by its "tête jaune de soufre ; sur le vertex un ovale noir, qui enveloppe les ocelles" (Saussure). In any case this character of coloration will distinguish it from any other of the species that have the first abdominal segment wholly black.

Hab. Australia.

17. PARALASTOR ALBIFRONS Fabr.

I have not examined the type of this species, but Mr. Meade-Waldo has very kindly examined it for me, as to certain structural points, from which I infer it should be placed next to *P. habilis*. In fact, I do not feel sure that the latter may not be a variety or race of the Fabrician species.

Hab. Australia (Banks collection).

18. PARALASTOR APICATUS Sm.

The type specimen is from Aru. Examples from Papua (*Odynerus lorentzi* Cam.) are at the most slight colour-varieties, quite unworthy of a special name. The tegulae are punctured on their inner portion, smooth and polished outwardly; the second abdominal segment seen in profile rises up strongly above the level of the first; ventrally, it rises up strongly, but rather obliquely, from the transverse sulcus, and the truncation is not at all prominent or produced forwards at its highest point.

Hab. Aru (Wallace), type in the British Museum and 1 ♂ in the Oxford Museum. I have seen several examples from New Guinea.

19. PARALASTOR PALLIDUS, sp. n.

♀. Nigra, clypeo flavo-bimaculato, aut macula curvata basali ornato. Frons interantennalis flavo-maculata; maculae pronotales flavescentes. Tegulae externae flavescentes aut rufo-flavae. Abdominis segmentum secundum ochraceo-flavum, macula triangulari basali signatum, sequentibus similiter pallide coloratis, margine etiam primi postico pallide fasciato, fascia hac media emarginata. Femorum apices, tibiae, tarsique rufescentia. Alae subhyalinae, parte costali infuscata. Clypeus nitidus, irregulariter punctatus, apice distincte, nec profunde, emarginato, margine elevato. Mesonotum densissime punctatum, postscutello inermi. Abdominis segmentum primum obscurius punctatum, secundum ventrale fortissime post sulcum abrupte elevatum, elevatione summa prominente. Tegulae ex magna parte dense distinctissime et subtilissime punctatae.

Unlike any other species superficially. The second dorsal segment is only a little more than ordinarily convex on its basal portion.

Hab. Queensland (E. Saunders's collection), 1 ♀; Mackay (Turner), 1 ♀.

20. *PARALASTOR INSULARIS* Sauss.

Unlike any other species superficially, the second abdominal segment black, with the extreme apex only indistinctly pale.

Hab. Australia, Swan River; 1 ♂.

21. *PARALASTOR TUBERCULATUS* Sauss. (Pl. I. fig. 3.)

A very distinct species, of which I have seen six females, four in the British Museum Collection and two in the Oxford Museum. This species should be removed from this position and placed next to *P. odyneroides* (no. 67).

Hab. Tasmania; Adelaide; Victoria (*French*). In the latter locality the abdominal bands are deeper yellow, in one example more orange-coloured.

22. *PARALASTOR EMARGINATUS* Sauss.

Hab. Tasmania, 1 ♀ in the Oxford Museum; Eaglehawk Neck, S.E. Tasmania, Feb. 12th–March 3rd, 1913, 1 ♀ (*Turner*).

23. *PARALASTOR PARCA* Sauss. (Pl. I. fig. 1.)

In one or two females the clypeus is quite truncate at the apex, and others are intermediate between these and those in which it is quite distinctly, though always shallowly, emarginate.

Hab. Tasmania, Franklin; Mt. Wellington and Eaglehawk Neck (*Turner*); Victoria (*French*).

24. *PARALASTOR LETUS*, sp. n.

♂. Niger, clypeo, antennarum articulo primo antice, macula interantennali, duabusque postocularibus, flavis. Pronotum, scutellum et nonnunquam postscutellum, flavo-bimaculata. Mesopleura sub tegulis flavo-notata, his ex magna parte rufescentibus, et nonnunquam flavo-notatis. Abdominis segmenta 2 basalia fascia flava apicali ornata, fascia prima media levius emarginata, secunda simplici, haud lata. Tibiæ tarsique rufescentes. Alæ distincte infuscatæ. Clypeus distincte, nec profunde, emarginatus, pilis pallidis ubique vestitus. Frons capitis dense rugoso-punctata, capite pilis longis vestito. Mesonotum dense punctatum, postscutello inermi; propodei lateribus rotundatis. Abdominis segmentum primum fortiter transversum, parte apicali excepta rugosissime puncturatum; segmentum secundum dorsale basin versus mediocriter convexum, pilis erectis longioribus parce vestitum; secundum ventrale fortissime et abrupte post sulcum elevatum, elevatione summa prominente; segmentum apicale ventrale pilis erectis sat longis vestitum, haud distincte depressum. Long. 9–10 mm.

Hab. Fremantle, Australia (British Museum), 2 ♂.

25. *PARALASTOR FRATER*, sp. n.

♂. Niger, capite thoraceque ut in *P. læto*, maculatis. Abdominis fascia prima et secunda fere aequaliter latæ, simplices;

postscutellum nigrum. A *P. læto* segmento tertio dorsali cum sequentibus pilis nullis erectis vestito, segmento 7 ventrali, cum præcedentibus, pilis erectis tantum brevissimis vestito, facile distinguendus. Tegulæ minutissime punctatæ. Abdominis segmentum primum latissimum et cum secundo nigerrimum.

Certainly distinct from the preceding by the differently clothed apical male ventral segment—a very important character. In both the tegulæ are for the most part feebly and very minutely punctate, the punctures feebly impressed.

Hab. Albany (*Brewer*); 1 ♂ in the Oxford Museum.

26. PARALASTOR ORDINARIUS, sp. n.

♀. Nigra, clypeo albido-flavo, macula discali nigra; macula interantennalis, una utrinque postocularis, et duæ pronotales, pallide flavæ. Tegulæ nigricantes, in parte exteriore testaceæ, postice flavo-notatæ. Abdominis segmentum primum postice albido-flavo-fasciatum, fascia utrinque paullo dilatata: segmenta sequentia simpliciter (nec late) fasciata. Tibiæ tarsique rufescentes. Clypeus latus, brevior, apice late et levissime emarginatus. Frons capitis crebre punctata. Mesonotum dense, minus grosse punctatum, postscutello inermi. Propodei latera fere æqualiter rotundata. Tegulæ ex parte magna lævissimæ, politæ, impunctatæ. Abdominis segmentum primum subcrebre punctatum, fascia pallida apicali puncta multa ferente. Abdominis segmentum secundum dorsale basin versus subfortiter convexum, ventrale, post sulcum, fortiter elevatum, elevatione summa haud prominente. Alæ subhyalinæ, parte costali magis infuscata, stigmate medio pallescente. Long. 8·5 mm.

A rather commonplace species, chiefly noticeable as having several pale abdominal bands.

Hab. Victoria, Wimmera (*coll. Froggatt*), 1 ♀.

27. PARALASTOR PUNCTULATUS Sauss. (Pl. I. fig. 17.)

(♂ = *P. albocinctus* Sm.? ♀, var. = *similis* Sauss.?)

In this species the apex of the clypeus is not always quite truncate, but is sometimes very faintly concave or has the margin a little sinuate. The basal abdominal segment is less strongly transverse than in many of the allied species. It is certainly variable both in small details of colour and structure, and I believe that *P. albocinctus* Sm. is only a male of this species, and *similis* Sauss. a slight variety. Saussure, in his first description of the latter, says that the second ventral segment of the abdomen is “sans tubercule,” and in his supplement he gives the presence or absence of a tubercle as the only distinctive character between the two forms. As in other species I have found that the truncation of the segment is sometimes more evidently raised or produced in some examples than in others, this minute distinction seems hardly sufficient.

The male of *punctulatus* is abundantly distinct from any of

the similar forms described by Saussure by its 12-jointed (not 11-jointed) antennæ.

Hab. Tasmania, Mt. Wellington and Eaglehawk Neck, Jan., Feb., and March, 1913 (*Turner*); Hobart; Mt. Kosciuszko, 6000 ft., N.S.W. (*Waterhouse*).

28. *PARALASTOR OPTABILIS**, sp. n. (Pl. I. fig. 12.)

Picturatio capitis, thoracis et abdominis, cum *P. fratris* et *P. leti* picturatione congruens. Species robusta, alis infuscatis. Clypeus ♀ medius niger. Clypeus distincte dentato-emarginatus, margine apicali inter dentes laterales medio leviter rotundato, sive paullo producto, quasi tridentato. Caput cum thorace sat dense pilis longis vestitum. Anguli pronotales parum distincti. Mesonotum tomentosum, punctis sæpe plus minus tomento obscuratis, postice haud dense (sc. irregulariter) punctatum, postscutello rotundato, inermi. Abdominis segmenta 2 basalia tomento nigerrima, puncturatione sæpe plus minus abdita, sive obscurata; primum fortissime transversum, secundum pilis erectis crebre ubique vestitum; fasciæ abdominales minus latæ, fere rectæ. Abdominis segmentum 2 ventrale fortiter abrupte post sulcum elevatum, elevatione summa prominente; segmentum ventrale ♂ apicale, æque ac præcedentia, perconspicue et dense pilis erectis vestitum. Antennæ ♂ 12-articulatæ. Tibiæ tarsique rufescentes aut testacei, plus minusve (præsertim in ♂) flavo-notati. Femora anteriora et intermedia ♂ flavo-notata, his in ♀ etiam flavo-notatis. Long. 12 (♂)–14 (♀) mm.

Hab. North Queensland (*Dodd*).

29. *PARALASTOR VULPINUS* Sauss.

In its typical form this species is distinct to the naked eye by its narrow first abdominal fascia, which, like the second, is pale yellow posteriorly and orange-brown or brown in front, and its robust form—the latter character distinguishing it from other species which have similarly bicolorous fasciæ. The first abdominal band becomes narrower towards the sides.

Other specimens often show little or no trace of the bicoloration of the fasciæ, which are often orange; the first is then excised or emarginate in the middle, so that it is notably widened on either side. This form may, with larger and better material, prove to be distinct; but I can see no satisfactory structural difference. It may be known as *P. vulpinus* st. *excisus*, n.

The well-clothed second dorsal segment of the abdomen, in well-preserved examples, is characteristic of both forms. The apical ventral segment of the male, if fully exerted, bears at its base a remarkable tuft of dense erect hairs, but these may be withdrawn beneath the sixth segment. Similar tufts occur in *P. simulator*, which is evidently allied to *vulpinus*. The antennæ of the male are 11-jointed.

* This species should be placed next to *P. aureocinctus* and *atripennis*, as in the table.

I have seen seven examples of *P. vulpinus* and ten of the race *excisus*; most of them are in bad condition.

Hab. Typical form: Adelaide, 1 ♀, Oxford Museum, and 1 ♀, British Museum; Victoria (*French*), 1 ♀; Croydon, 1 ♂ (*Froggatt*); the rest without special locality. Race *excisus*: Pt. Stephen, 1 small ♀; Melbourne (*French*), 1 ♀; Mittagong, N.S.W., 1 ♀; Cumberland, N.S.W. (*Turner*), 1 ♀; Woodford, 1 ♀.

30. PARALASTOR SIMULATOR, sp. n.

Picturatio thoracis et abdominis picturationi *P. vulpini* fere similis; mesopleura sæpissime nigra, innotata; scutellum nunquam bimaculatum; clypeus ♀ macula magna curvata basali ornatus, aut hac bipartita. Tibiæ tarsique ferruginei; tibiæ posteriores linea albida ornatae; alæ hyalinae costali parte sola distincte infuscata. Tegulae nitidae aut subnitidae, flavo-marginatae, aut albido-marginatae, plus minusve subtilissime punctatae. Clypeus leviter aut levissime emarginatus, ♀ nitidus, parvissime distincte punctatus, inter puncta hæc majora subtilissime distincte punctulatus. Frons capitis dense punctata. Anguli pronotales distincte prominentes. Caput cum thorace pilis crebre vestitum. Mesonotum et scutellum crebre, plus minus grosse, punctata, scutello inermi. Abdominis segmentum primum fortissime transversum; secundum dorsale (præcipue maris) fortiter supra primum convexim elevatum, ventrale fortiter post sulcum elevatum, elevatione obtusa, parum prominente; segmenta sequentia ventralia ♂ brevissime pubescentia. Antennæ ♂ 11-articulatae, articulis 3 ultimis minutissimis. Long. 6.5–9.5 mm.

Hab. Adelaide, 2 ♂; Victoria (*French*), 1 ♀; 2 ♂ and 1 ♀ without special locality.

31. PARALASTOR PUSILLUS Sauss.

This species is of the same general appearance and structure as *P. simulator*, but should easily be distinguished by the prothoracic angles being indistinct or not at all produced and the second ventral segment having the top of the truncation in the middle produced into a spiniform tubercle. No mention is made of a white or yellow margin to the tegulae, nor of the conspicuous white or yellow line on the hind tibiæ.

The examples that I have before me from the British Museum and Oxford, named *pusillus*, are partly *P. simulator* and partly other species.

Hab. "La Nouvelle-Galles du Sud" (*coll. F. Smith*).

32. PARALASTOR DONATUS, sp. n.

Colore *P. simulatori* fere assimilis. Abdomen fasciis duabus bicoloratis ornatum, secunda latera versus ampliata. Clypeus

♂ albido-flavus, ♀ niger, macula permagna, curvata, basali, aurantiaco-tincta, ornatus. ♂ antennarum articuli 2 primi antice, maculaque interantennalis albido-flavescentes; ♀ articulus primus antennalis antice aurantiacus, macula interantennali bicolore. Maculæ postoculares verticis minutæ, flavescentes. Maculæ pronotales sat magnæ, aut bicolores, aut rufescentes. Scutellum bimaculatum; mesopleura aut flavo-aut aurantiaco-maculata. Propodeum utrinque juxta basim suam notatum. Tibiæ omnes ♂ cum metatarsis intermediis et posterioribus fere totæ albidæ; ♀ tibiæ intermediæ et posteriores supra longe albescentibus; femora posteriora utriusque sexus ferruginea; anteriora et intermedia plus minusve albido-variegata. Tegulæ albido-cinctæ. Clypeus levissime emarginatus, ♂ opacus, convexus, dense argenteo-pubescent, obsoletim punctatus, inter hæc puncta majora densissime et subtilissime punctulatus; ♀ pernitidus, distincte sparsim punctatus, inter hæc puncta parcissime, vix evidenter, minutissime punctulatus. Frons capitis parum profunde punctata. Anguli pronotales fere recti, haud prominentes. Scutellum distincte, nec dense, punctatum, postscutello inermi; propodei lateribus rotundatis. Abdominis segmentum secundum dorsale haud fortiter convexim elevatum, tomentosus, pilis erectis carens; ventrale, post sulcum transversum, sat fortiter, suboblique supra partem basalem suam elevatum, elevatione summa haud prominente. Segmentum ♂ ventrale 7 pilis brevissimis erectis vestitum. Alæ hyalinæ, costali parte sola infuscata; tegulis glaberrimis, nitidis, ex majore parte impunctatis. Long. 8-9 mm.

Hab. Bacchus (or Bocchus?) Marsh; given to me by my late friend, G. W. Kirkaldy.

33. PARALASTOR DESPECTUS, sp. n.

♀. Nigra, parte basali clypei macula, antice emarginata, aurantiaca ornata. Frons interantennalis aurantiaco-notata. Antennarum articulus primus antice flavo-lineatus. Maculæ postorbitales verticis minimæ, flavæ. Pronotum rufescens, antice utrinque plus minusve flavescent, nigro-marginatum. Postscutellum utrinque macula parva aurantiaca aut rufescente ornatum. Abdominis segmentum primum, parte nigra declivi excepta, fere totum rufescens et postice albido-flavo-marginatum; secundum fascia simili decoratum, antice emarginata, latera versus fere ad medium segmentum extensa. Clypeus levissime emarginatus, margine apicali elevato, sat dense, grossius punctatum, et cum oculorum sinu conspicue albo-pubescent. Anguli pronotales haud prominentes. Mesonotum cum scutello nitidum, illo dense et grosse punctato, postscutello inermi. Tegulæ ex majore parte glabræ, politæ, nigre, margine ipso testaceo. Alæ fere hyalinæ, costa magis infuscata. Abdominis segmentum 2 dorsale ad basim fortiter convexum; ventrale post sulcum fortiter

supra partem suam basalem elevatum, elevatione summa laud prominente sive tuberculiformi. Tibiæ ferruginæ, intermediæ et posteriores intra infuscatæ sive nigricantes, his supra flavolineatis, tarsis nigricantibus, articulo apicali pallescente. Antennæ breves et crassæ. Long. 8 mm.

Hab. W. Australia; 1 ♀ in the British Museum.

34. *PARALASTOR TRICOLOR*, sp. n. (Pl. I. fig. 5.)

♀ colore *P. despecto* simillima, sed postscutello laud binotato, scutello bimaclato, mesopleuris notatis, abdominis segmento secundo minus late fasciato, fascia fere recta.

♂ clypeus flavus aut flavus et aurantiacus, medius fusco- aut nigro-maculatus. Antennarum articulus primus rufescens, antice flavescens, secundus nonnunquam rufescens. Macula interantennalis, maculæ pronotales, scutellares et mesopleurales aurantiacæ, aut plus minus flavescens aut rufescentes. Tegulæ rufescentes aut flavo-variegatæ. Abdominis segmentum primum supra rufum, antice nigro-emarginatum, postice flavo-marginatum. Tibiæ tarsique rufescentes.

♀ ac ♂ fere similiter colorata, sed clypeus ex magna parte est niger, lateribus flavis aut aurantiacis, tibiis supra sæpe longe flavescentibus.

♂ clypeus distincte nec profunde emarginatus, parce punctatus, puncturatione minutissima, inter puncta majora, distincta. ♀ clypeus plerumque levius, quam maris, emarginatus, et crebrius, distinctissime punctatus. Mesonotum fortiter denseque punctatum, postscutello inermi, propodeo rotundato, distincte punctato, angulis pronotalibus parum distinctis. Abdominis segmentum secundum dorsale pilis erectis, laud densis (et facile detritis), ubique vestitum, basim versus (præcipue ♂) sat convexum. Segmentum 2 ventrale fortissime post sulcum transversum elevatum, elevatione summa prominula. Segmentorum sequentium apices sæpe aurantiacæ, aut plus minus pallidæ. Alarum pars costalis distincte infuscata, partibus cæteris leviter infuscatis. ♂ antennæ 11 articulatæ, articulis 3 ultimis minutis, ♀ laud plus quam solito incrassatæ. Long. 8-9 mm.

This species somewhat resembles the preceding *P. despectus*, but is probably not very closely allied, as the female—this being the only sex known of the other—has the clypeus much less short and much less convex, and the punctures are much less close. The second ventral abdominal segment is more strongly raised, the top of the truncation in the middle being of more pointed form, the second dorsal segment less abruptly and strongly raised from the base etc., and the coloration of the insect is brighter. It is excessively like *P. picteti* Sauss. in the other section of the genus. The emargination of the clypeus is very shallow in some females, rather deeper in others.

Hab. Queensland, Cairns, 2 ♀, 1 ♂. July; Kuranda (*Dodd*), 1 ♀; Mackay and Kuranda, several examples (*Turner*).

35. PARALASTOR ROSEOTINCTUS, sp. n.

♀. Nigra; abdominis segmentum primum supra (sc. parte declivi excepta) fere totum pallide aurantiacum, antice nigro-emarginatum; segmentum secundum fascia lata apicali, lateraliter fere ad medium attingente, ornatum. Clypeus maculis duabus curvatis magnis lateralibus, nonnunquam ad basin una conjunctis, notatus; macula interantennalis magna, postorbitalis parva. Antennarum articulus primus antice, aut totus, aut basin versus, aurantiacus aut rufescens. Maculae pronoti magnae, ad medium ejus longitudinem attingentes, nonnunquam una conjunctae (sc. haud interruptae), et fasciam formantes. Mesopleura notata; tegulae mesonotum juxta nigricantes. Scutellum, postscutellum et propodeum aut utrinque notata, aut tota nigra. Alae hyalinae, parte costali parum late infuscata. Tibiae tarsique rufescentes. Color picturationis est insolitus, pallide roseo-tinctus. Clypeus subnitidus, fortiter punctatus, puncturatione minutissima interstitiali sat distincta, apice leviter emarginato. Frons capitis densissime (nec profunde) rugose punctata. Anguli pronotales distincti, nec acuti. Mesonotum sat grosse rugoso-punctatum, tegulis in parte exteriori haud evidenter punctulatis, postscutello inermi. Abdominis segmentum primum haud evidenter transversim impressum, rugoso-punctatum; secundum dorsale fortissime in formam conicam elevatum; ventrale, post sulcum suum, distincte (nec fortissime) supra partem suam basalem elevatum, elevatione summa late rotundata, haudquaquam subacute prominula. Long. 8.5 mm.

The variation in the colour of the hind parts of the thorax is unusual, but I have no doubt the two examples are of the same species. The clothing of the thorax is not at all dense, so that the sculpture is very easily seen. The very strong and pointed elevation of the second dorsal segment of the abdomen is like that of *P. tuberculatus* Sauss. alone of all the species known to me.

Hab. Australia, Swan River, 1 ♀; W. Australia, 1 ♀.

36. PARALASTOR XEROPHILUS, sp. n.

♂. Niger; clypeus, macula interantennalis, lineaque orbitalis, in oculorum sinus extensa, flavescentia. Antennarum articulus primus antice aurantiacus, et plus minus flavescent. Maculae postoculares verticis minores, elongatae, aurantiacae. Pronotum, desuper aspectum. fere totum late aurantiacum, propodeo utrinque macula parva (an semper?) rufescente ornato. Femora, tibiae tarsique aurantiaca. Abdominis segmentum primum dorsaliter totum aurantiacum, hoc colore in partem declivem extenso, basi nigra; segmentum secundum late aurantiaco-fasciatum, fascia fere recta, aut tantum antice paullo concavo; segmenta 2 sequentia aurantiaco-fasciata. Clypeus distincte, nec profunde, emarginatus, haud dense, grossissime sed leviter, punctatus, et inter puncta majora dense minutissime punctulatus, argenteo-pubescent. Frons capitis, cum mesonoto et propodeo,

quam densissime rugoso-punctata, postscutello inermi. Anguli pronotales distincti, truncationis margine distincte elevato. Tegulae in parte exteriori, qua sunt latissimae, impunctatae vel fere impunctatae, puncturatione minuta absenti. Alae subinfusatae, parte costali saturatiore, basim versus flavescente. Abdominis segmentum primum rugoso-punctatum, medium impressum; secundum dorsale basim versus subfortiter convexum; ventrale, post sulcum costatum, fortiter elevatum, elevatione summa paullo prominula, ibique grosse rugoso-punctatum; segmenta apicalia tomentosa, ultimo pilis paucis brevioribus suberectis vestito, minutissime dense punctulato, haud impresso. Long. circa 11 mm.

Hab. Central Australia, Hermansburg (*H. J. Hillier*), 1 ♂.

37. *PARALASTOR PLACENS*, sp. n.

♀. Nigra, clypeo, macula interantennali, et duabus verticis postocularibus, pronoto, maculis subtegularibus, duabus magnis scutellaribus et propodealibus, duabus postscutellaribus, abdominis segmentum primum, triangulo elongato nigro basali, cujus apex superficiem superiorem intrat, excepto, margine postico secundi sat late, femoribus, tibiis tarsisque aurantiacis aut rufo-aurantiacis. Fascia segmenti secundi media antice excisa, segmentis sequentibus nigris. Tegulae ex majore parte aurantiacae. Alae subhyalinae, costali parte infusata. Clypeus nitidus, subtiliter perparce punctatus, punctis minutissimis etiam parvis, apice distincte, nec profunde, emarginato. Frons capitis grosse punctata, punctis sat distinctis. Pronoti truncatio haud marginata. Mesonotum dense subrugosim distincte punctatum, punctis scutellaribus remotioribus. Postscutellum distincte punctatum, inerme. Tegulae politae, puncturatione minutissima in parte exteriori carentes. Abdominis segmentum primum subirregulariter punctatum, medium impressum: secundum dorsale sat elongatum, lateribus perpaullo rotundatis, fascia apicali excepta, tomento nigerrima; ventrale, post sulcum, fortissime abrupte elevatum, post elevationem haud grosse punctatum. Long. circa 9 mm.

Hab. Australia, Swan River, 1 ♀.

38. *PARALASTOR ERIURGUS* Sauss.

The only examples of this large and robust species that I have seen with a definite locality-label are from Queensland. The apex of the clypeus is very distinctly margined, at least in the female.

The male has the usual 11-jointed antennae, with the three apical joints minute. The third and following ventral segments of the abdomen are quite densely hairy, the apical segment bearing quite long erect hairs, being finely punctured and without an impression. The clypeus is densely pubescent, the larger punctures obsolescent, the minute puncturation dense. The

tegulae in both sexes have a close minute puncturation on their outer portion. The amount of black on the clypeus of the female varies and probably may be altogether absent, while in some the orange colour is reduced to a wide curved or horseshoe-shaped mark. The single male has only a small black spot near the apex.

Hab. Queensland, Brisbane (*Hacker*), 4 ♀ taken singly in Jan., Feb., March, and April. Four other ♀ and 1 ♂ examined.

39. PARALASTOR ARGENTIFRONS Smith.

This species structurally seems to be almost identical with *P. eriurgus* and is perhaps only a southern race of the Queensland form, but is very different in superficial appearance. It varies greatly in the width of the abdominal fasciae of the first two segments. Of the 13 examples before me I do not think that there are even two that are alike in the pattern of coloration of the second dorsal segment. One example, in which the black forms an equilateral basal triangle, bears a MS. label, "*saucius* Sauss. Type." The clypeus in the single male bears a black median apical spot, in the female it may be all black or marked at the base; it also varies in puncturation, and in some examples is quite dull, in others more shining. The pronotal spots may be absent. In some examples the upper edge of the truncation of the second ventral segment is less pointed in the middle (as in the type) than in others, but I have examples taken in company which differ in this respect, but not otherwise. The silvery pubescence of the sides of the clypeus and adjoining orbits is more distinct and conspicuous in some than in others. The male characters are as in *P. eriurgus*.

Hab. Adelaide (my collection), 3 ♀, 1 ♀ & 1 ♂ (Oxford Museum); S. Australia, 1 ♀ (Oxford Mus.) and 1 ♀ (British Museum); Victoria (*French*), 4 ♀; 2 ♀ without special locality.

40. PARALASTOR SUBOBSCURUS, sp. n.

♂. Niger, clypeo flavo, medio nigro-punctato, macula elongata interantennali maculaque parva verticis postoculari, flavis. Maculae pronotales, mesopleurales, et scutellares aurantiacae. Tegulae aurantiaco-marginatae. Abdominis segmenta 2 basalia postice rufo-marginata (vix aurantiaca) fasciis fere rectis, minus latis. Tibiae tarsique ferruginei aut rufescentes. Alae infuscae, parte costali saturatiore.

Species villosa, *P. eriurgo* et *argentifrons* angustior. Clypeus fortiter emarginatus, nitidus, remote punctatus, minus pubescens. Frons rugoso-punctata. Pronoti truncatio laud evidenter marginata, angulis tamen lateralibus distinctis. Mesonotum grosse punctatum, punctis distinctis, minus confluentibus. Postscutellum inerme. Propodeum distincte punctatum. Abdominis segmentum primum subaequaliter punctatum, pilis longis vestitum; secundum

dorsale pilis brevibus erectis sparsim vestitum, dense nigro-tomentosum; ventrale fortissime post sulcum transversum elevatum, elevatione summa acutius prominula, puncturatione vix grossa aut densa; segmentum ultimum, cum præcedentibus, pilis sat longis erectis vestitum. Tegulæ in parte exteriori minutissime punctulatæ, punctis subobsoletis. Long. 9.5 mm.

Hab. North Queensland (*Dodd*), 1 ♂.

41. *PARALASTOR SIMPLEX*, sp. n.

♀. Nigra, macula interantennali, aliisque duabus minutis postocularibus aurantiacis. Pronotum et mesopleura maculis magnis aurantiacis ornata. Scutellum juxta marginem suum posteriorem et postscutellum fascia interrupta aurantiaca ornata. Tegulæ pallidæ; alæ subflavo-infuscatæ. Tibiæ tarsique ferruginei, illis aut externe aut subtus nigricantibus, articulis tarsorum nonnullis etiam plus minusve infuscatis. Abdominis segmenta 2 basalia aurantiaco-fasciata, fasciis haud latis, fere æqualibus. Clypeus levissime emarginatus, parce subtilius punctatus, inter puncta majora parce subtilissime punctulatus, opacus. Pronoti truncatio (parte media excepta) fortiter elevato-marginata. Mesonotum fortiter densissime punctatum, postscutello inermi. Abdominis segmentum primum quam densissime punctatum; secundum dorsale dense nigro-tomentosum, basi haud convexum elevatum; ventrale, post sulcum transversum, fortissime elevatum, elevatione summa conspicue prominente. Tegulæ opacæ, punctis paucis majoribus exceptis, impunctatæ. Long. 13 mm.

This appears to be a very distinct species, but the single example is much abraded, and the flavescent appearance of the wings may be partially due to age, but on the other hand these may be still yellower in fresh examples, as the stigma itself is more or less pale in colour.

Hab. Albany (*Brewer*), 1 ♀.

42. *PARALASTOR MIMUS*, sp. n.

♀. Angusta, nigra; macula interantennalis, cum duabus elongatis postocularibus, pronotum, tegulæ, scutellum, postscutellum, propodeum, maculæ mesopleurales, abdominis segmentum primum (parte decliva majore excepta), femora, tibiæ tarsique, nonnunquam etiam coxæ et trochanteres, rufa aut flavo-rufa. Clypeus aut totus niger, aut totus rufescens, aut niger, rufo-tinctus. Alæ, costali parte excepta, parum infuscatæ. Clypeus distincte emarginatus, punctis majoribus et minutissimis commixtis signatus, pubescens. Mesonotum postice irregulariter punctatum; postscutellum inerme. Tegulæ minutissime punctatæ, puncta complura majora nonnunquam ferentes. Abdominis segmentum primum breviter campanulatum, vix densissime punctatum; secundum ad basim conspicue angustatum, lateribus fere rectis aut parum rotundatis, satis longum, basim versus fortiter convexum. Segmentum 2 ventrale post sulcum transversum

fortissime elevatum, elevatione summa haudquaquam acute prominente, fortiter punctatum. Long. circiter 9 mm.

Very distinct from any of the preceding species by its colour, narrow elongate form, the longer first abdominal segment, long subparallel-sided second segment, etc. It might almost be placed in the other division of the species here described, and is included in the tables of both divisions.

Hab. Australia, Swan River, 3 ♀ (two in the Oxford and one in the British Museum); 1 ♀ in very bad condition is labelled "New South Wales," probably in error.

43. PARALASTOR IMITATOR, sp. n. (Pl. I. fig. 10.)

♀. Præcedenti simillima, sed minor, tegulis grosse punctatis, puncturatione minutissima absente, antennis brevibus et crassis facile distinguenda.

Form, colour, and general appearance almost exactly as in *P. mimus*. In the single specimen the clypeus is black on about the apical third, its apex is very lightly emarginate. The fourth, fifth, and sixth antennal joints are extremely strongly transverse. The tegulæ are very shining, conspicuously, coarsely, and deeply punctured, and without the numerous minute punctures that form the chief sculpture in *P. mimus*. The wings are still clearer, with very little infuscation along the costa. The basal abdominal segment is rather shorter and the second less abruptly narrowed at the base. The second ventral segment is considerably less strongly raised behind the transverse sulcus. Long. 7.5 mm.

This species is very distinct.

Hab. Australia, Champion Bay, 1 ♀.

44. PARALASTOR DEBILIS, sp. n. (Pl. I. fig. 20.)

♂. Niger, clypeo, antennarum articulo primo antice, maculaque postoculari minuta, flavescentibus. Pronoti fascia, utrinque dilatata, pars tegularum exterior, notæ parvæ scutelli duæ, fascia sat lata postscutellaris, abdominis segmentum primum, parte declivi excepta, fascia secundi apicalis, aurantiaca aut aurantiacorum. Tibiæ ferrugineæ, tarsis ex majore parte fusco-brunneis. Clypeus brevis, sat convexus, apice levissime emarginato, dense argenteo-pubescentibus. Frons capitis pilis crebre vestita. Pronoti truncatio fere recta, aut perpaullo concava, distincte elevato-marginata. Mesonotum densissime fortiter punctatum, scutello similiter punctato, postscutello inermi. Tegulæ nitidæ, grosse et conspicue punctatæ. Abdominis segmentum primum, quam densissime, grosse punctatum, secundum etiam densissime ubique punctatum, basi fortiter convexim elevata. Segmentum 2 ventrale post sulcum transversum distincte (sed haud fortissime) supra partem basalem suam elevatum, elevatione summa haudquaquam acutius producta, post hanc late et conspicue impressum, et crebre punctatum; segmenta apicalia appresse

pubescentia, ultimo pilis paucis longioribus erectis vestito. Long. circa 7 mm.

The pronotal band at its widest hardly reaches the middle of the length of the pronotum; the second abdominal segment is thinly clothed with more or less erect hairs, its apical fascia is not dilated at the sides, and only moderately wide, not occupying more than about one-fifth of the segment.

Hab. West Australia, Swan River, 1869, 1 ♂ (*de Boulay*), in the Oxford Museum.

45. PARALASTOR EUGONIAS, sp. n.

♂. Niger; clypeus maculaque interantennalis elongata aurantiaco-flavescentes. Pronoti maculae duae, et tegulae ex majore parte, rufescentes. Segmentum abdominis primum et secundum postice rufo-marginata, fascia prima latera versus angustata, secunda utrinque valde dilatata, ibique ante aut ad medium segmenti longitudinem extensa, caeteris segmentis (saltem ex majore parte) rufis aut aurantiacis. Tibiae tarsique rufescentes. Species minor, sed haud gracilis. Clypeus lunulato-emarginatus, ex majore parte subdeplanatus, distincte, remote, haud grosse punctatus, basi lateribusque suis argenteo-pubescent. Frons cum thorace crebre pilosa. Mesonotum dense punctatum, scutello inermi. Tegulae grosse et conspicue punctatae. Abdominis segmentum secundum dorsale dense, grossius punctatum, parte basali fortiter convexa; ventrale, post sulcum, fortiter abrupte elevatum, et postice grosse denseque punctatum. Anguli posteriores segmenti 2 dorsalis conspicue acute producti. Long. circiter 8 mm.

Hab. Adelaide (*A. K. Davis*), 1 ♂.

46. PARALASTOR MICROGONIAS, sp. n.

♂. Præcedenti simillimus, clypeo brevior et angulis segmenti 2 dorsalis abdominis posterioribus perpaullo productis distinguendus. Long. circiter 7 mm.

Exactly like the preceding in general appearance, but the clypeus is distinctly less produced apically and less flattened, and its puncturation rather coarser. The lateral angles of the hind margin are only very slightly produced backwards. The wings are hardly infuscate, except along the costa, where the infuscation is dark and conspicuous. In the preceding species the wings are folded and appear dark, but this may be only due to the folding. Both species have a small postocular spot on each side of the head, which was not mentioned in my description of the preceding.

In both, the apical antennal joints are excessively minute, forming a sort of small tubercle in the concavity of the eighth, and it is difficult to tell whether two or three joints are here present, but I have satisfied myself that there are three, so that the antennae are normal for the genus, 11-jointed.

Hab. Adelaide, 1 ♂ (British Museum).

47. *PARALASTOR SANGUINEUS* Sauss.

I examined the type of this species in the British Museum, but unfortunately have not been able to make an actual comparison between it and the two preceding, one or other of which may be only a variety of *sanguineus*. It has the apex of the clypeus much more widely black, in the preceding only the actual margin being black. From a rough sketch that I made, it is also, possibly, more produced. The red apical band of the second dorsal segment of the abdomen is produced further towards the base on each side. These colour-characters, however, would of themselves be insufficient for specific distinction. I did not observe the hind angles of the second dorsal segment.

It certainly appears probable that one or other of these males belongs to the female described as *vulneratus* Sauss., but the very different clypeus forbids us to associate them without further evidence. It is usual for the male clypeus to be more deeply emarginate than that of the female, whereas in the males and females in question, the clypeus of the female is extraordinarily deeply emarginate, far more strongly than in the male. Nevertheless, I suspect that *sanguineus* Sauss. and *vulneratus* Sauss. are sexes of one species.

Hab. Australia (British Museum).

48. *PARALASTOR ARGYRIAS*, sp. n.

♂ colore *P. sanguineo* Sauss., congruens, sed clypeo toto flavo, antennarum articulo primo antice flavescente, maculisque pronotalibus magnis, fasciam vix interruptam, utrinque dilatatam, formantibus. Alæ hyalinæ, costali parte infuscatæ. Clypeus fere æqualiter conspicue convexus, parum profunde et fere æqualiter punctatus, puncturatione interstitiali crebra, ubique argenteo-pubescent. Oculorum sinus utrinque flavo-notatus. Anguli pronotales parum distincti. Mesonotum dense punctatum, scutello inermi, propodeo brevi et rotundato, tegulis grossissime punctatis. Abdominis segmentum primum dense, distincte punctatum, lateribus suis, cum lateribus basalis partis secundi, conspicue argenteo-tomentosis. Segmentum secundum dorsale latera versus copiose, sed haud densissime, punctatum, basali parte fortiter supra segmentum primum convexim elevata, fascia apicali utrinque fere ad medium segmentum attingente, antice emarginata; segmentum 2 ventrale, post sulcum transversum, fortiter abrupte elevatum, post elevationem summam depressum, puncturatione distincta, haud densa; segmentum septimum pubescentia decumbente vestitum, pilis longis erectis carens. Long. circiter 9 mm.

A very distinct species structurally, but resembling *P. eugonias* in colour and pattern, except for the yellow front of the scape and the much greater development of the pronotal markings.

Hab. New South Wales, Wagga (*Froggatt*), 1 ♂.

49. PARALASTOR EUCLIDIAS, sp. n.

♂ picturatione fere *P. argyrie* ornatus, sed fascia segmenti 2 abdominalis fere ad basim utrinque protracta. Clypeus, antennarum articulus primus antice, macula elongata interantennalis, duæ postoculares, flavescentia aut flavo-aurantiaca. Maculae duæ pronotales aurantiacæ. Tegulae incomplete rufo-marginatæ. Abdominis segmentum primum postice late aurantiaco-fasciatum, fascia antice emarginata; fascia secundi fere ad basim segmenti utrinque producta (sc. segmentum secundum aurantiacum, et triangulo magno nigro basali ornatum). Tibiæ, tarsi apicesque femorum aurantiaco-fulvescentes. Segmentum abdominalis tertium dorsale, cum sequentibus, aurantiacum, segmentis ventralibus (quæ post secundum posita sunt) atris, apicibus pallidioribus. Clypeus sat longus, distincte emarginatus, obscure sparsissime punctatus, et ubique densissime et minutissime punctulatus, ubique argenteo-pubescent. Frons capitis dense, nec profunde punctata. Mesonotum crebre punctatum, scutello sat convexo, postscutello inermi, tegulis grosse punctatis, propodeo utrinque rotundato. Abdominis segmentum primum rugose punctatum; secundum (in aspectu laterali) basim versus fere æqualiter curvatum, sive convexum, latera versus punctis inter se ex magna parte distinctis, haud ubique rugosim confluentibus. Abdominis segmentum 2 ventrale post sulcum suum transversum, fortissime elevatum, elevatione summa conspiciè prominente, post elevationem depressum et subfortiter sed vix grosse punctatum; segmentum ultimum latum, brevissime pubescens. Alæ, costali parte excepta, levissime infuscatæ. Antennæ 11-articulatæ. Long. circiter 10 mm.

As in many species, there is a silvery pubescence, conspicuous in some aspects, along the lower part of the inner orbits and filling the sinus of the eyes.

Hab. Victoria, Gippsland (*Froggatt*).

50. PARALASTOR OCCIDENTALIS, sp. n.

♂. Niger, clypeo, macula elongata interantennali, articulo primo antennarum antice, duabusque notis postocularibus, aurantiacis. Pronotum, angulis deflexis inferioribus exceptis, totum, scutellum postscutellumque, macula magna mesopleuralis, coxæ (basi excepta), femora, tibiæ tarsisque, cum lateribus propodei, duabusque maculis mesonotalibus triangularibus, rufescentibus, vix aurantiacis. Tegulae partibus thoracis cæteris pallidius coloratæ. Abdominis segmentum primum (parte declivi excepta), fasciæque, minus lata, apicalis segmenti secundi, rufa. Clypeus sat longus, apice distincte, leviter emarginatus, densissime minutissime punctulatus, punctis majoribus paucis interspersis, argenteo-tomentosus. Frons capitis rugose punctata. Pronotum fere recte truncatum, truncatione bene elevato-marginata. Pronotum, mesonotum et scutellum densissime punctata, scutello haud evidenter armato. Tegulae profunde et grosse punctatæ. Abdominis

segmentum primum densissime rugoso-punctatum, secundum basin versus haud fortiter convexim elevatum, a latere visum, tantum mediocriter convexum. Segmentum 2 ventrale, post-sulcum, fortissime abrupte elevatum, elevatione summa conspicue prominente, sive tuberculata; segmentum ultimum latum, subdepressum, brevissime pubescens. Alarum pars costalis usque ad stigma pallidum conspicue flavescens, parte cætera plus minusve violaceo-nitente. Antennæ 11-articulatæ. Long. 12 mm.

Hab. Australia, Swan River; 1 ♂ in the British Museum.

51. PARALASTOR ORIENTALIS, sp. n. (Pl. I. fig. 21.)

Niger, clypeo, macula interantennali, duabusque postocularibus, antennarum ♂ articulo primo antice, pronoto supra usque ad tegulas, scutelli et postscutelli aut fascia completa aut maculis duabus, propodeo utrinque, abdominis segmento primo (parte declivi excepta) fere toto, apicali fascia secundi cum sequentibus, tibiis tarsisque et sæpe parte femorum majori, aurantiacis. Clypeus et macula interantennalis sæpe, quam maculæ cæteræ, flavescentiores. Alæ distincte ubique infuscatæ, costali parte saturatiore. Clypeus distincte, nec profunde emarginatus, ♀ fortiter, ♂ multo obscurius, punctatus, puncturatione minutissima densa et conspicua. Mesonotum dense rugoso-punctatum, scutello inermi, tegulis fortiter punctatis. Abdominis segmentum primum distincte punctatum, pilis erectis perparce vestitum; segmentum secundum tomento pernigrum, pilis erectis carens, fascia apicali latera versus paullo latiore. Segmentum 2 ventrale, post sulcum, fortissime elevatum, elevatione summa prominula, anterieus producta, segmento ultimo ♂ subdepressum, pubescens, pilis erectis parum vestito. Long. 9–11 mm.

The orange colour varies in depth, being redder in some and yellower in others. Sometimes there are two orange spots on the mesonotum in front. There is also variation in the amount of puncturation of the tegulæ. I have seen only six examples, and four of these are without special locality.

Hab. New South Wales, 1 ♀ (British Museum); 1 ♀, Queensland, Bundaberg, taken by myself; 2 ♂ 2 ♀, Oxford Museum, and 1 ♀, British Museum, without special locality.

52. PARALASTOR LACHESIS Sauss.

This species has the same coloration as *P. orientalis*, and may be identical with it. Owing to the fact that the sculpture of the tegulæ is not referred to in Saussure's description, I cannot place it in my tables. The clypeus is said to be "strongly emarginate," whereas the term is not as a rule used by Saussure for species which have the clypeus no more strongly emarginate than *P. orientalis*.

Hab. Tasmania, according to Saussure, but I have seen no Tasmanian species with this style of coloration, which is so

common on the mainland. Two other species, *P. picteti* and *P. tasmaniensis*, recorded from Tasmania, are known to me only from Queensland, and the possibility of error in Saussure's localities seems to be considerable.

53. PARALASTOR NAUTARUM SAUSS.

This species, described on a single male, should probably be placed near *P. orientalis*, as I have a note that the tegulæ are very coarsely punctured, the clypeus distinctly, but not deeply, emarginate. Superficially at least it is quite distinct from this or allied forms, by the first segment of the abdomen being orange with a black spot on its declivous basal portion, the second and following ones being entirely black. The ventral surface of the abdomen has a short dense pubescence.

Hab. Australia (British Museum).

54. PARALASTOR SOLITARIUS, sp. n. (Pl. I. fig. 6.)

♂. *P. orientali* colore et vestitu simillimus, sed minor, orbitis interioribus aurantiaco-fasciatis, maculis postocularibus magnis, elongatis, ante medium oculorum marginem exteriorem extensis, fascia pronotali haud ad tegulas extensa, tegulis ipsis inter puncta majora minutissime punctulatis, abdominis segmento 2 ventrali, post sulcum, multo minus fortiter elevato, elevatione summa haud aut vix antice producta, facillime distinguendus. Long. circiter 7 mm.

I have seen only one example of this species, which in general appearance and sculpture resembles *P. orientalis*. The orange of the basal segment is emarginate with black in the middle in front, as in the other, but the second segment is less conspicuously deep black, owing to the less dense tomentum, and the puncturation therefore appears much more distinct. The tegulæ bear less numerous punctures than is usual in this group.

Hab. Queensland, Bundaberg, 1 ♂, taken by myself.

55. PARALASTOR HILARIS, sp. n. (Pl. I. fig. 18.)

♂. Caput flavum, colore flavo postoculari ab colore flavo frontali separato, vertice nigro, hoc colore late in frontem producto. Antennarum articulus primus, cum maxima mandibularum parte, flavus. Pronotum, scutellum, postscutellum, propodeum utrinque, mesopleura antice, et tegulæ, flava, plus minusve hic illic aurantiaco-tincta. Coxæ, trochanteres, femora, tibiæ tarsique flava, nonnullis in partibus brunnescentia. Abdominis segmentum primum, parte declivi excepta, flavum, antice nigro- aut brunneo-nigro emarginatum; segmentum secundum ad basim brunneum, medium nigrum, postice sat late flavo-marginatum, segmentis sequentibus plus minusve flavis. Antennarum flagellum subtus plus minusve rufescens. Clypeus sat longus, apice distincte emarginato, subæqualiter nec dense punctatus, puncturatione

minutissima inter puncta majora densa. Frons capitis cum thorace brevissime pilosus. Mesonotum nitidum, densissime, fortiter punctatum, scutello inermi, tegulis grosse et profunde punctatis. Abdominis segmentum primum latissimum, fortiter punctatum, pubescentia minutissima decumbente excepta, fere nudum; segmentum secundum fortiter convexim elevatum, pilis erectis carens, distincte crebreque punctatum. Segmentum 2 ventrale post sulcum sat abrupte, sed minus fortiter, supra partem suam basalem elevatum, elevatione summa quasi incrassationem transversam formante, post hanc depressum et subtilius nec dense punctatum; segmentum ultimum pilis erectis evidenter vestitum, leviter convexum, et subtiliter, nec dense, punctatum. Alæ fere hyalinæ, costali parte conspiciuntur infuscata. Long. circiter 7 mm.

Hab. Northern Australia, Port Darwin; North Queensland? (*Dodd*).

56. PARALASTOR MACULIVENTRIS SAUSS.

I think it probable that this species may be identical with my *P. elegans*, described above. Saussure says nothing of the strongly raised elongate clypeal carinæ, which Mr. Meade-Waldo informs me occur in Saussure's type, as in *P. elegans*. He also informs me that the type specimen is deformed, the sides of the face being asymmetrical. The only difference, so far as I can judge, between the two forms is that in *P. maculiventris* the apical band of the first abdominal segment is entire, not disappearing before it attains the lateral angles, that the head is said to be covered with a blackish tomentum (pale in *P. elegans*, and conspicuously golden in front), the "inner borders of the eyes are yellow" (only a yellow spot in the *sinus* in *P. elegans*), while the latter has the postscutellum hardly perceptibly tuberculate.

Hab. Australia. Type in the British Museum.

57. PARALASTOR BICARINATUS, sp. n.

Niger, macula interantennali, duabus postocularibus, duabus pronotalibus, maculis duabus, aut una magna, scutellaribus, duabus propodealibus, tegulis, segmentum primum abdominis (parte declivi excepta) ex majore parte, secundique fascia apicali, plus minusve antice utrinque producta, cum parte apicali segmentorum sequentium, flavis. ♂ clypeus totus, antennarumque articulus primus antice, flavi; ♀ clypeus medius, cum lateribus extra carinas niger. Alæ fere hyalinæ, costali parte infuscata, stigmatibus atro-fusco. Tibiæ tarsique apicesque femorum flavescens. Color flavus plus minus auriaco-tinctus. Clypeus fortiter emarginatus et acute dentatus, parce punctatus, inter puncta majora minutissime punctulatus, fortiter productus, et duabus carinis elongatis, acute elevatis, munitus. Frons capitis grosse et distincte punctata, interstitiis inter puncta minute punctulatis. Mesonotum grosse punctatum, pilis erectis longioribus vestitum, pronoto antice parum distincte marginato,

scutello inermi. Tegulae parum nitidae, minutissime obsoletim punctulatæ, punctis nonnunquam tribus aut duobus majoribus notandis. Abdominis segmentum primum minus fortiter punctatum; secundum ad basin subfortiter convexum. Segmentum 2 ventrale post sulcum fortissime elevatum, elevatione summa sat fortiter prominente; segmentum ultimum ♂ subconvexum, haudquaquam depressum, breviter pilosum. Long. 9-11 mm.

In the male the yellow of the first segment is nearly straight in front, in the female it is emarginate in the middle. The apical band of the second segment in the male does not reach the middle of the segment, in the female it extends far beyond the middle basally. I think this is mere individual variation and probably not a constant sexual difference.

Hab. Queensland, Mackay (*Turner*); 1 ♂ and 1 ♀.

58. PARALASTOR ATRIPENNIS, sp. n. (Pl. I. fig. 13.)

♀ color colori varietatum *P. argentifrontis* nonnullarum perfecte similis, sed alis atris ubique violaceo-nitentibus primo aspectu distinguenda. Maculae parvae interantennales cum duabus postocularibus aurantiacæ. Segmentum primum abdominis fascia apicali fere recta, haud dimidiam partem suam in aspectu dorsali occupante, secundum fascia lata rufescente, antice emarginata, latera versus ante medium segmentum protracti, ornatum, cæteris segmentis his fasciis colore fere similibus. Tibiæ tarsique rufescentes. Tegulae obscurius rufescentes. Clypeus fortiter emarginatus, dentibus lateralibus obtusis, inter hos margine nonnullis in aspectibus perpaullo prominente, ut quasi obscure tridentatus appareat, nitidus, antice fortius, postice subtilius punctatus, et inter puncta majora minutissime punctulatus. Frons capitis rugosa, punctis obscurissimis. Mesonotum subopacum, puncturatione inæquali, punctis nonnullis grossioribus, nonnullis minus grossis commixtis. Postscutellum medium paullo productum, sive obscure tuberculatum. Tegulae dense minutissime punctatæ, punctis perpauca majoribus præsentibus. Abdominis segmentum secundum ventrale post sulcum transversum fortissime abrupte elevatum, elevatione summa prominula. Long. circa 14 mm.

I have seen only one old example in dirty condition. It is very distinct from any other that has similar coloration and markings. The clypeus is more or less flat over most of its surface, excepting the base and the decurved sides.

Hab. Adelaide (*Wilson*); 1 ♀ in the Oxford Museum.

59. PARALASTOR AUREOCINCTUS Guér.

There is a single female of this species in the British Museum, bearing a label "*Alastor eriurgus*, var." Practically it resembles *eriurgus* in colour, but in structure it is extremely close to the preceding, to which it has no superficial likeness. The tegulae

have the same dense, distinct, minute puncturation and the clypeus is nearly of the same form, as also is the general sculpture. The postscutellum has even less evidence of a tubercle than that of the preceding species. Length about 15 mm.

Hab. Australia, without definite locality; 1 ♀ in the British Museum. Judging from the coloration, one would expect to find this species in Queensland.

60. PARALASTOR DENTIGER, sp. n. (Pl. I. fig. 11.)

♂ colore et picturatione fere *P. mimi* (q. v.) ornatus. Notæ postoculares minores, clypeo aurantiaco, margine apicali et nonnunquam linea mediana nigris. Alæ ubique infuscatæ. Clypeus fortiter emarginatus, nitidus, parte media nitida, glabra, depplanata, basi lateribusque decurvatis et dense argenteo-pubescentibus. Frons dense et rugose punctata. Mesonotum densissime punctatum, postscutello tuberculo spinoso conspicue armato, tegulis puncturatione densissima et minutissima carentibus, sed punctis nonnullis majoribus plerumque distinctis. Abdominis segmentum primum transversim subdepressum, plus minusve rugoso-punctatum, colore rufo antice profunde, sed anguste, nigro-emarginato; segmentum secundum dorsale basim versus leviter convexum; ventrale, post sulcum suum transversum, fortissime elevatum, elevatione summa prominente; segmentum ultimum cum præcedentibus pilis erectis evidenter vestitum. Antennæ 11-articulatæ, tribus apicalibus articulis minutis. Long. 11·5 mm.

This is a more robust species than *P. minus* and *imitator*, which it so much resembles superficially. The posterior face of the propodeum is more extensively black than in the former. Structurally it is entirely distinct from both.

Hab. Champion Bay and Swan River; 2 ♂ in the British Museum.

61. PARALASTOR INFIMUS, sp. n.

♂ picturatione, forma, et colore *P. eriurgo* simillimus, sed apice clypei haud distinctissime elevato-marginato, et scutello sat conspicue tuberculato bene distinguendus. Clypeus leviter emarginatus, grosse punctatus, nitidus, basi lateribusque dense argenteo-pubescentibus. Frons dense rugoso-punctata. Tegulæ densissime et minutissime punctulatæ. Thorax sat grosse punctatus, pilis erectis ubique conspicue vestitus. Abdominis segmentum primum medium impressum, margine apicali excepto, crebre punctatum. Abdominis segmentum 2 ventrale, post sulcum fortissime elevatum, subopacum, crebre punctatum, elevatione summa prominula, hoc segmento cum sequentibus pilis erectis fere æquilongis vestito, segmento ultimo spatium medianum nitidius, lineis elevatulis definitum, præbente. Long. 12·5 mm.

Hab. Queensland, Brisbane (*Hacker*), 1 ♂ in December.

62. *PARALASTOR SUMMUS*, sp. n.

♀. Nigra, clypei lateribus deflexis (parte apicali excepta), macula interantennali, duabus postocularibus, pronotalibus, mesopleuralibus et scutellaribus cum parte tegularum, flavescentibus, aut plus minus aurantiaco-flavis. Abdominis segmentum primum et secundum late aurantiaco-marginata, fascia secunda utrinque ante medium segmentum protracta, segmentis sequentibus, plus minusve aurantiacis. Tibiæ tarsique rufescentes. Clypeus (lateribus deflexis exceptis) deplanatus, nitidus, fortiter in parte apicali punctatus, apice subfortiter emarginato et producto. Frons cum thorace fusco-pilosa. Mesonotum grosse punctatum, inter puncta minutissime punctulatum, sive quasi granulatum, postscutello tuberculato, tegulis densissime punctulatis, opacis. Alæ subhyalinae, parte costali infuscata. Abdominis segmentum primum ex majore parte subtilius nec dense punctatum, secundum basim versus minus fortiter convexum, tomento pernigro vestitum, pilis erectis parvissimis. Segmentum 2 ventrale post sulcum suum fortissime elevatum, elevatione summa, desuper visa, subangulata. Long. circiter 12 mm.

This is a less robust species than the preceding, and the thorax is notably longer. The flat portion of the clypeus becomes very narrow posteriorly, being closely adapted to, and continuing the plane of, the interantennal plate, when viewed from the side.

Hab. Queensland, Cairns, 1 ♀.

63. *PARALASTOR MEDIUS*, sp. n.

♀ præcedenti cognatissima, clypeo brevior, basim versus fortiter sed sparsim punctato, propodeo utrinque maculato, distinguenda.

Very similar to the preceding, but the coloration is still yellower (less orange), the clypeus is reddish apically and the yellow colour of the sides extends to the apical teeth. The yellow pronotal markings nearly reach the tegulae, instead of being confined to the front half; the band of the basal abdominal segment is different in form, being emarginate in the middle of its front margin, and the second is only a little widened at the sides; the legs are much more pale in colour. Structurally, the clypeus easily separates the two forms.

Hab. Queensland, Mackay, 1 ♀ (*Turner*).

64. *PARALASTOR EUSTOMUS*, sp. n.

♀. Nigra, clypeo utrinque late, macula elongata interantennali, parte articuli primi antennalis antica, notis postorbitalibus duabus, pronoto fere toto, tegulis, fascia scutellari et postscutellari, propodeo utrinque, femoribus, tibiis tarsisque, segmento (parte magna basali declivi excepta) primo, fasciæ apicali, vix dilatata, secundi, cum segmentis sequentibus, aurantiaco-rufis. Clypeus profundissime emarginatus, emarginatione, quam semicirculus, profundiore, post hanc depressus, nitidus, punctatus, lateribus

deflexis opacis et pubescentibus. Frons capitis et thorax densius pilosi, pilis minus longis. Pronotum antice fere recte truncatum, parum distincte marginatum. Tegulae dense minutissime punctulatae, fere opacae. Postscutellum medium tuberculo spiniformi armatum. Abdominis segmentum primum transversim subdepressum, haud grosse punctatum; secundum dorsale, basim versus, haud convexim elevatum; ventrale, post sulcum transversum, fortissime elevatum, fortiter nec dense punctatum. Alae infuscae. Long. circiter 12 mm.

Owing to the depression of the clypeus anteriorly, behind the emargination, two blunt or rounded carinae are formed where the sides are deflexed.

Hab. Australia, no special locality. Two old and dirty examples in the British Museum.

65. PARALASTOR PSEUDOCROMUS, sp. n. (Pl. I. fig. 14.)

♀ colore et picturatione *P. argentifrons* Sm. ornata, et ut probabile, eodem modo variabilis; structura a *P. eustomo* vix distinguenda. Long. 10.5–12 mm.

Two long curved spots on the sides of the clypeus and the medio-frontal and postocular spots orange, those on the clypeus reduced in size and redder in one example. Pronotal spots, which are small, and the pale part of the tegulae orange or red. Both the first and second fasciae of the abdomen are broad and laterally dilated, the second at its middle reaching about to the middle of the segment, and towards the sides considerably nearer still to the base. The coloration is not the same as that of *P. eustomus*, but is rather that described by Saussure as "*sanguineus*." Excepting that it appears to be of rather more slender and elongate form, the species in structure is much like *P. eustomus*. Since the two examples, that I have seen, exhibit some variation, further material is necessary to decide whether the present species and *P. eustomus* are more than local colour-forms of one species.

Hab. Victoria (*French*); two examples.

66. PARALASTOR VULNERATUS Sauss.

This small but robust species appears to vary in the pattern of the second abdominal segment, like *P. argentifrons* Sm., or rather, I should say, like the examples I refer to that species. The clypeus may be all black, or may have small or large, orange or red, basal markings.

The extraordinary prolongation and flattening of the clypeus, with its very deep emargination, and the flattening of the plate between the antennae to adapt it to the base of the clypeus, separate it from any other, except the following. The extremely deep and coarse puncturation of the tegulae, the form of the insect and its sculpture, and the condition of the hind angles of the second abdominal segment, are altogether like *P. sanguineus* Sauss.,

of which I suspect it may be the female. No two of the three females are alike in detail, but the material is quite insufficient for a proper understanding of the species. The clypeus is normally extraordinarily dull, and I suspect this is due to some special excretion, as a specimen I possess shows some more shining spaces and some dull raised lumps, as if the excretion had not been distributed in the usual even manner. The scutellum is unarmed, and the second ventral segment is very strongly and abruptly raised behind the transverse sulcature.

Hab. Victoria, 1 ♀ (*French*); 1 ♀, without special locality, in the Oxford Museum; 1 ♀, Adelaide, in my collection.

67. *PARALASTOR FALLAX*, sp. n.

♀ picturatione et colore *P. mimi* (q. v.) et *dentigeri* ornata. Clypei pars deplanata antice nigra, postice rufa. Alæ fere hyalinae, parte costali perconspicue infuscata. *P. vulnerato* structura evidenter cognatissima, sed major, clypeo nitidissimo, mesonoto magis nitido, abdominis segmento 2 dorsali, basin versus, leviter convexo, facile distinguenda. Long. 10 mm.

The markings are red, as in various other species from Western Australia, which it entirely resembles superficially. I cannot be certain whether the clypeus is always highly polished, as in the single example described, or whether it may not be sometimes dull, as in *vulneratus*, but in any case the species is easily distinguished structurally by the small convexity of the second abdominal segment, which in *vulneratus*, viewed laterally, rises convexly above the first to a distinctly more conspicuous degree.

Hab. W. Australia, 1 ♀ (British Museum).

68. *PARALASTOR BRISBANENSIS*, sp. n.

♀. Nigra, clypeo utrinque, macula parva interantennali duabusque postocularibus, pronoto (desuper aspectu) ex maiore parte, tegulis, fascia lata scutellari, fascia postscutellari, macula utrinque mesopleurali, abdominis segmento primo (parte declivi excepta) ex maiore parte, fascia secundi segmenti minus lata, fere recta, cum marginibus posterioribus segmentorum sequentium, auran-tiacis. Alæ infuscatae, parte costali saturatiore. Clypeus leviter late emarginatus, opacus, æqualiter, subtiliter punctatus, et lateribus deflexis argenteo-pubescentibus exceptis, ubique deplanatus. Frons inter antennis deplanata, clypeo quam perfectissime adaptata, spatio depresso, ocellum anteriorem includente, lineis curvatis lævibus et elevatis late marginato. Mesonotum grosse punctatum, postice tri-sulcatum, sulcis lateralibus ad pronoti marginem interiorem extensis, postscutello inermi, tegulis nitidis, sat conspicue grosse punctatis. Abdominis segmentum primum profunde, sed minus grosse, punctatum, inter puncta quam densissime punctulatum, sive granulatum. Segmentum 2 dorsale pernigrum, densissime inter puncta minutissime sculpturatum, basin versus fortiter convexum; segmentum

2 ventrale, post sulcum, fortissime elevatum, elevatione summa prominente. Long. 11.5 mm.

The clypeus is wide and much less produced than in *P. vulneratus*, and is only feebly emarginate, but it is flattened in the same perfect manner, and the front, between the antennæ, is similarly flattened. The raised smooth lines of the front of the head are found only in this and the following allied form. The femora all have a conspicuous yellow apical spot outwardly, which contrasts strongly with the ferruginous tibiæ and tarsi.

Hab. Queensland, Brisbane. I captured 1 ♀ on Christmas Day, 1904.

69. PARALASTOR MACKAYENSIS, sp. n.

♀ structura præcedenti fere similis, sed abdomine flavo-ornato, pedibus pallidioribus, fascia prima abdominali antice sat profunde nigro-emarginata, pronoti maculis multo minoribus, scutello post-scutelloque binotatis, haud fasciatis, distinguenda.

In the very poor material at my disposal I see no structural character that could be relied on, as constant, to separate this form from the preceding, of which it is probably a more northern race. In markings and in colour of the markings the two are very distinct, the deep orange colour of *brisbanensis* being replaced by a more ochreous or pale orange in *mackayensis*.

Hab. Queensland, Mackay, 2 ♀ (*Turner*); 1 ♀ from the same locality from E. Saunders.

70. PARALASTOR PRINCEPS, sp. n.

Niger, valde longipilosus, macula parva interantennali, duabusque minutis postocularibus, ornatus. Maculæ duæ minores pronotales, fasciæque duæ abdominales, minus latæ, aurantiacæ. ♂ clypeus cum parte articuli antennarum primi antica flavescens. Species grandis, pilis longis ubique conspicue vestita, capite quadrato-incrassato, clypeo (præcipue ♂) brevi, lato, apice truncato, pilis longis erectis conspicue vestito; clypei ♀ punctis majoribus aliisque minutis sat densis. Frons media dense rugosim sculpturata, antennis versus et in sinu oculari utroque pilis longis nigricantibus conspicue vestita. Mesonotum et scutellum quam densissime sculpturata, postscutello inermi. Abdominis segmentum primum pilis longis griseis, secundo etiam et sequentibus pilis erectis longis et conspicuis vestitis. Alæ (costali parte excepta) exemplorum recentium parum infuscatæ. Tegulæ subtiliter punctatæ, minutissime etiam punctulatæ. Abdominis segmentum 2 ventrale post sulcum suum transversum fortissime elevatum, elevatione summa prominente, pilis longissimis vestitum, segmento ♂ ultimo minutissime punctato, punctis paucis majoribus intermixtis, pubescente, et pilis erectis sparsim vestito. Femora, tibiæ tarsi que nigra, aut nigricantia, tibiis posterioribus basin versus

maculatis, pilis longis tenuibus sparsim vestitis. Long. 14-15 mm.

This large hairy species with truncate clypeus cannot be confused with any other. There is a good female in the British Museum bearing a MS. label, "*Alastor australis*," which is a smaller species with ferruginous tibiæ and tarsi, and otherwise different. There is a single male, deprived of the greater part of its antennæ, and a very old abraded female in the Oxford Museum, which have the wings more infuscate or discoloured by age.

Hab. W. Australia, 1 ♂, 2 ♀, as referred to above.

71. *PARALASTOR SUBOLORIS*, sp. n.

Mas mari præcedentis colore, vestitu et sculptura similis, sed statura multo minore, thorace toto nigro, abdominis fascia prima latissima, partem majorem segmenti, desuper aspecti, occupante; tarsis omnibus tibiarumque apicibus testaceis, facillime distinguendus. Long. 10 mm.

Apart from the above characters, the apical ventral segment is still broader, its minute puncturation is less dense, and the few slightly larger punctures are hardly noticeable, while the second ventral segment is much more finely punctured. A single female in the British Museum may belong to this species. It lacks the minute interantennal spot of the male, but has two small prothoracic ones. Its second dorsal segment is very long and parallel-sided. It is in a dirty condition.

Hab. W. Australia, 1 ♂ in the Oxford Museum.

72. *PARALASTOR OLORIS*, sp. n. (Pl. I. figs. 4 & 16.)

Mas mari *P. suboloris* forma, sculptura, vestitu et colore simillimus, sed minor, antennarum articulo primo nigro, tibiisque ferrugineis facile distinguendus.

A small narrow species, with the basal orange fascia deeply emarginate in front, the 2nd ventral segment with large sparse punctures, and the top of the truncation in the middle still more strongly raised and prominent than in the preceding species. The apical ventral segment is less wide, very dull from the extreme density of the sculpture, which is hardly to be distinguished as puncturation, between the fine and sparse feeble punctures, that can be distinguished as such. The clothing of this segment consists of excessively short pubescence or tomentum, long, erect hairs being absent. The second ventral segment is almost bare except just behind the tubercle, and the following ones are merely tomentose. Antennæ 11-jointed, with the three apical ones minute, as in *P. suboloris*.

Hab. Australia, Swan River; 1 ♂ in the British Museum.

73. *PARALASTOR COMMUTATUS*, sp. n.

♀. Nigra, angustula, clypei macula basali magna, curvata, macula interantennali, duabus postocularibus minutis, pronoto

ex parte maxima, maculis 2 rotundatis scutellaribus, duabus minutis mesopleuralibus, fascia latissima segmenti 1 abdominalis, fascia secundi fere recta et, quam fascia prima, multo minus lata, tibiis tarsisque omnibus, rufescentibus. Clypeus truncatus, ex majore parte dense, subtiliter ruguloso-punctatus. Mesonotum posterius irregulariter aut vix dense punctatum, postscutello inermi. Tegulae vix nitidae, ex majore parte subtilissime, vix evidenter sculpturatae, puncturatione minutissima distincta carentes. Abdominis segmentum primum haud fortissime transversum, parte declivi excepta fere totum rufum; secundum elongatum, lateribus fere parallelis, basi haudquaquam convexim elevata. Segmentum 2 ventrale post sulcum fortissime elevatum, elevatione summa fortissime prominente, tuberculum fortem formante. Long. 9 mm.

I have seen only a single female of this distinct species and it is in dirty condition. The wings appear to be infuscate, but this may be partly due to this condition. In any case the costal portion is much darker than the rest.

Hab. Australia, Champion Bay; 1 ♀ in the British Museum.

74. PARALASTOR CARINATUS Sm. (? LATERITIUS Sauss., var.).

I have before me a single female from the Oxford Museum, which I refer, as a slight variety, to this species. It has a pair of small orange basal spots on the clypeus, and the black colour of the second abdominal segment is more extensive, forming a basal band, angulated in the middle and with irregular sinuations on each side of this. The clypeus is truncate, punctate, and more or less strigose, turned upwards on its apical portion, and with a fovea in the middle adjoining the apical margin. There is in some aspects a faint trace of tuberculation in the middle line of the postscutellum. The second ventral segment is very strongly raised behind the transverse sulcature, and somewhat pointedly produced in the middle at the top of the truncation; it is rather finely and not very unevenly punctured, with very distinct interstitial minute puncturation.

Hab. Adelaide, 1 ♀, Oxford Museum. The type is in the British Museum and must nearly, if not altogether, agree with the Oxford specimen, except in slight points of colour, which vary similarly in other species.

75. PARALASTOR VIDUUS, sp. n.

♂. Niger, clypeo, articulo antennarum primo antice, maculisque 2 postocularibus, flavis. Pronotum colore aurantiaco-flavo bimaiculatum, scutello minute binotato. Abdominis segmenta 2 basalia sat late aurantiaco-fasciata, segmentis nonnullis sequentibus etiam fasciatis. Clypeus nitidus, late truncatus, minus inaequaliter punctatus, pilis erectis, aut suberectis, pallidis vestitus. Frons cum thorace pilis longis subfuscis conspicue vestita. Pronoti truncatio evidenter marginata. Tegulae nitidae,

ex maxima parte vix punctatæ. Postscutellum inerme. Abdominis segmentum primum transversim depressum, margine posteriore elevatulo, medium subfoveatum, puncturatione confusa; secundum dorsale pilis parvis longis erecte vestitum, fortissime convexim elevatum; ventrale, post sulcum suum, fortiter elevatum, elevatione summa haud prominente, cum sequentibus hirsutissimum, segmento ultimo pilis erectis brevioribus sat dense vestito. Antennæ fortiter clavatæ, 12-articulatæ, articulis 4 ultimis parvis. Long. circiter 11 mm.

Hab. Victoria, 1 ♂ (*French*). The specimen bears several labels: "C.F. 8.00"; "Macedon 1.3.93"; "Melbourne, Victoria."

76. PARALASTOR ODYNERIPENNIS, sp. n.

♀ colore fere præcedentis, sed clypeo nigro, ad basim flavo-aurantiaco-maculato, scutello et antennis nigris, tibiis nigricantibus, tarsis ex majore parte atro-brunneis.

Structurally this appears to me to be almost identical with *P. carinatus*, but the dark legs (the hind tibiæ inwardly at the base being rufescent) easily distinguish it. The second cubital cell is triangular and not at all petiolate. The second abdominal fascia does not occupy half the length of the segment.

Hab. Victoria (*French*).

77. PARALASTOR ODYNEROIDES, sp. n.

♂ colore *P. vidui*, sed macula interantennali elongata flava, scutello nigro, maculis pronotalibus minutioribus aurantiacis, distinguendus. Structura valde distinctus. Clypeus fere recte truncatus, medius depressus, utrinque quasi rotundatim carinatus, obscure punctatus. Mesonotum grosse punctatum, postscutello inermi, tegulis nitentibus, ex majore parte obsoletissime minutissime punctulatis. Abdominis segmentum primum fortiter transversum, rugosissime grosse punctatum, parte declivi media longitudinaliter carinata. Segmentum 2 dorsale fortiter basin versus convexim elevatum, fascia utrinque ante medium segmentum extensa, profunde rotundatim antice emarginata, segmentis cæteris aurantiacis. Segmentum 2 ventrale post sulcum fortiter abrupte elevatum, elevatione summa subangulatim producta; segmentum ultimum fortiter convexum, pilis erectis vestitum. Antennæ 11-articulatæ, articulis 3 ultimis minimis. Cellula 2 cubitalis haud petiolata. Long. circiter 11 mm.

Hab. Australia; 1 ♂ in the Oxford Museum.

78. PARALASTOR MUTABILIS, sp. n. (Pl. I. fig. 8.)

♀. Nigra, clypei macula basali transversa, antice emarginata, duabus minutis postocularibus, duabus pronotalibus, tegularum parte exteriori, fascia lata abdominalis segmenti primi, antice emarginata, fascia secundi, aut fere simplici, aut utrinque valde

dilatata, et fere ad basim segmenti extensa, rufis aut rufescentibus. Clypeus latus, truncatus, subæqualiter punctatus, et minutissime punctulatus. Mesonotum crebre fortiter punctatum, scutello inermi, tegulis nitidis, punctis majoribus nonnullis, parum fortiter impressis, præsentibus. Alæ infuscatæ, parte costali saturatiore. Abdominis segmentum secundum dorsale ad basim subfortiter convexum; ventrale, post sulcum, sat abrupte elevatum, parte antesulcali parti postsulcali altitudine subæquali, elevatione summa haudquaquam prominente. Long. 9-10 mm.

With this species begins a series of forms with the hind part of the second ventral segment raised only to about the height of the basal portion, and with the clypeus always truncate apically.

Hab. Victoria (*French*); 2 ♀, Sept. 1901. The two examples have a quite different pattern of the second abdominal segment, and they are in a dirty condition.

79. PARALASTOR PLEBEIUS, sp. n.

♀. Nigra, macula clypei curvata basali, notis 2 postocularibus, duabus maculis pronotalibus, nonnunquam notis 2 scutellaribus, margine postico segmentorum 2 basium abdominis angustius, flavis. Clypeus truncatus aut paullo antice rotundatus, fortiter æqualiter punctatus. Frons capitis cum mesonoto dense punctata, pilisque brevioribus sat crebre vestita, scutello inermi. Tegulæ nitidæ, parum distincte sculpturatæ. Abdominis segmentum primum fortiter transversum; secundum ad basim fortiter convexum, pilis erectis brevioribus ubique, nec dense, vestitum; secundum ventrale, ut in præcedente formatum. Alæ fusco-hyalinæ, parte costali multo magis infuscata. Tibiæ tarsique rufescentes. Long. 9-10 mm.

Hab. Adelaide, 1 ♀, British Museum; 1 ♀, Oxford Museum; Victoria (*French*), 1 ♀.

80. PARALASTOR SUBPLEBEIUS, sp. n. (Pl. I. fig. 15.)

♀ præcedenti cognatissima, sed major, fasciis abdominalibus minus angustis, flavo-aurantiacis, segmento primo abdominis conspicue transversim depresso, facile distinguenda. Long. 12 mm.

This is probably the representative in Queensland of *P. plebeius*, but, apart from colour, the form of the basal abdominal segment is too distinct to permit the two to be considered as varieties of one species.

Hab. North Queensland (*Dodd*), 2 ♀.

81. PARALASTOR DEBILITATUS, sp. n.

Color fere *P. pusilli* Sauss. et *P. simulatoris* mihi. Fasciæ abdominales bicolores, antice rufescentes aut subaurantiacæ, postice flavæ. ♂ clypeus flavus, ♀ parte posteriori sola flava

aut aurantiaca. Antennarum articulus primus ♂ antice flavus, ♀ aut plus minus rufescens aut totus niger. Maculae pronotales bicolores. Scutellum sæpius binotatum, tegulis subtestaceis. Tibiæ tarsique rufescentes. Species parva, angusta, clypeo et segmento 2 ventrali ut in spp. precedentibus formatis, forma gracillimi facile distinguenda. Long. 7-8 mm.

In this and the three preceding species the antennæ are very clavate, the fifth joint being wider than long and the following becoming still more transverse. The males, except that of *P. debilis*, are not known. In this male the antennæ are very strongly clavate, the fifth joint not longer than its apical width, the sixth and seventh strongly transverse. In all there are twelve joints, the three apical ones recurved to form a small hook, the preceding one being larger, but small. The wings are nearly hyaline, except along the costa, in one example, darker in the others, which are in abraded condition. One example in the Oxford Museum bears a MS. name, "*Alastor pusillus* Sauss.," but this is clearly an error.

Hab. Victoria (*French*), 2 ♀, in the British Museum; 1 ♂, Adelaide (*Wilson*), and 1 ♀ without locality, Oxford Museum.

82. PARALASTOR BRUNNEUS Sauss.

With this species is begun a short series of allied species, which are quite distinct from any others by the form of the second ventral segment, which, behind the longitudinally costate sulcature, rises very obliquely from this to a height not, or but little, exceeding the level of the base of the segment. The clypeus is always very distinctly emarginate and plentifully and coarsely punctate, the punctures in the male being, however, more feebly impressed than in the female. The tegulae, over at least a considerable part of their surface, always bear coarse punctures, the puncturation being frequently rugose, but owing to the generally pale colour of the surface, the puncturation is usually less conspicuous than it would be were the tegulae dark in colour.

Hab. Australia, 2 ♀ and the type in the British Museum (*Hunter*).

83. PARALASTOR MULTICOLOR, sp. n. (Pl. I. figs. 9, 19.)

Præcedenti cognatissimus, sed paullo minor; ♀ clypeo flavo et macula verticis nigra, utrinque usque ad antennas producta, facile distinguendus. Clypeus distincte dentato-emarginatus, productus, minus latus, subgrosse, crebre punctatus, flavus. Caput cum thorace perparce, vix evidenter, pilosum. Mesonotum et scutellum densissime punctata, postscutello inermi. Abdominis segmentum primum crebre rugosim punctatum, haud transversim depressum; secundum dorsale (a latere visum) fortiter subæqualiter convexim curvatum; ventrale, post sulcum, oblique, parum fortiter, elevatum, et late subdepressum; segmentum ultimum ventrale ♂ brevissime pubescens. Antennæ ♂, ut

apparet, tantum 10-articulatæ, articulis 2 ultimis minutissimis. Long. circiter 7-7.5 mm.

The colour of this little species is variable. The colour of the whole front of the head is pale (the clypeus always yellow, but in other parts the yellow becomes partly or wholly orange), except that in the female the black of the vertex is produced down to the antennæ in two broad stripes, which sometimes become reddish towards the antennæ. In the male the black colour is prolonged downwards on each side for only a short distance, being arcuately emarginate just in front of the anterior ocellus. The posterior orbits are widely yellow or orange, and connected with this same colour of the anterior ones. Around the ocelli the vertex is black, but behind these may be either black or red. The pronotum, scutella, and propodeum (except in the posterior concavity) are for the most part yellow or orange, the pronotum sometimes more brownish or reddish posteriorly. The mesonotum may be all black or nearly all red. The second abdominal segment is more or less brown or reddish in front of the orange-yellow apical band, sometimes nearly entirely so. The basal segment is yellow or orange-yellow apically, shading into brown or reddish, black basally. The sides of the thorax may be black or red, with yellow markings. Legs all pale, usually fulvous, with bright yellow lines on the tibiæ and femora.

Very closely allied to *P. brunneus*, but the edges of the lateral deflexed parts of the clypeus are not so sharply defined, and the colour is very different.

I can only distinguish ten joints in the male antennæ, and this character may be peculiar to the group.

Hab. Port Darwin (*Dodd*).

84. PARALASTOR ANOSTREPTUS, sp. n.

♀. Nigra, clypeo, antennarum articulis duabus basalibus, orbitis anterioribus et posterioribus (hand interrupte), macula elongata mediofrontali, a clypeo fere ad ocellum anteriorem extensa, pronoto ex maxima parte, postscutello et scutello fere totis, maculis magnis propodei lateralibus, parte magna mesopleurali, fascia latissima segmenti abdominalis primi, fascia apicali, utrinque subdilatata, secundi, cum pedibus omnibus, refescentibus. Segmentum abdominis tertium et sequentia, plus minusve colorata. Tegulæ brunnescentes, plus minus testaceæ. Clypeus fortiter rugoso-punctatus, apice producto, parum lato, subfortiter emarginatus, partibus deflexis argenteo-pubescentibus, utrinque in parte apicali subcarinatus. Frons densissime rugoso-punctata, pilis brevissimis vestita. Thorax haud aut vix pilosus, ubique densissime punctatus, postscutello inermi, propodei lateribus argenteo-tomentosis. Abdominis segmentum primum campanuliforme, sat longus, subdepressus, secundum densissime punctatum, ex majore parte longitudinis fere æqualiter et fortiter convexim rotundatum, apicem suum versus fortiter transversim

incrassatum, margine ipso valde abrupte dejecto. Alæ ubique fusco-nitidæ, parte costali saturatiore, basim versus subflavescente. Long. 9 mm.

Hab. N.W. Australia, S. Heywood I.; 1 ♀ in the British Museum.

85. *PARALASTOR DYSCRITIAS*, sp. n.

♀ præcedenti forma, colore et picturatione simillima, sed abdominis segmento secundo ante incrassationem apicalem haud transversim depresso, bene distinguenda. Long. 9 mm.

Differs slightly in colour from the preceding, as follows:—The markings of the head and abdomen tend to a more orange-red colour, and those behind the eyes do not extend beyond about the middle of the length of these organs. There is a roundish mesopleural spot beneath the tegulæ and only a very small one beneath this; the tegulæ are much redder, the legs paler, more fulvous. The apical dorsal segment is concolorous with the orange ones preceding it. The third antennal joint is nearly all red (only somewhat reddish in the other). These colour-differences may be quite inconstant, but in *dyscritias* the tegulæ are coarsely rugosely punctate over nearly the whole surface, smooth, shining, and sparsely punctured over a considerable area in *anostreptus*. The actual hind margin of the second segment is more abruptly depressed in the latter, and its incrassation is raised on the basal side from the general surface of the segment, whereas in *dyscritias* it is not at all defined in front from the rest of the surface.

Hab. Australia, 1 ♀ in the British Museum, without locality.

86. *PARALASTOR XANTHOCROMUS*, sp. n.

♀. Nigra, clypeo utrinque, macula interantennali, antennarum articulo (ferrugineo) primo antice, maculis duabus elongatis postocularibus, duabusque in sinu oculorum sitis, duabus pronotalibus, scutellaribus, mesopleuralibus et propodealibus flavis, sive aurantiaco-flavis. Abdominis segmentum primum late flavo-fasciatum, fascia profunde nigro-emarginata; secundum cum sequentibus fascia apicali ornatum. Pedes fulvescentes, partibus nonnullis flavescentibus. Long. 9 mm.

Extremely close to the preceding in structure, but entirely different in appearance. The tegulæ have the same coarse puncturation. The clypeus is a little more strongly produced, and the front of the head rather more distinctly punctured, while the apical margin of the second dorsal segment of the abdomen is less strongly and abruptly depressed.

A single male that I possess, from Townsville, does not agree with either this or the preceding species, but is very like *dyscritias* ♀ in its markings; which, however, are orange-coloured, not red, and there is a pair of large red spots towards the base of the second ventral segment, not connected with the

apical band. The structure of the second dorsal segment apically is rather different from either species, but, in the absence of the male sex of the others, it is too close to be worth describing as distinct. This male was taken on March 15th, 1902, by Mr. F. P. Dodd.

Hab. Queensland, Cairns, 1 ♀.

87. PARALASTOR PICTETI Sauss.

With this species begins a series of allied forms, forming my second division. It is Saussure's division of *Alastor picteti*, which he characterized as having the abdomen subpetiolate. All the specimens of *picteti* that I have seen come from Queensland. The details of coloration in this species vary a little, and I think none exactly agrees with Saussure's description. He gives "Tasmania" as the locality for his insect, but, as with some other species already referred to, I doubt the correctness of this. The tegulæ are for the most part smooth and polished.

Hab. Queensland, Bundaberg and Cairns, taken by myself; Mackay, three bad specimens (*Turner*); Kuranda, May to June, 1913, eleven examples.

88. PARALASTOR CONSTRICTUS, sp. n.

♀. Nigra, clypei parte basali nigra, apice lateribusque flavis, puncturatione variabili. Macula interantennalis, margines oculares antice posticeque plus minus—variabiles tamen sunt—pronoti fascia irregularis anterior, ad tegulas lineatim utrinque producta, maculæ scutellares, postscutellares, propodeales et mesopleurales, segmentum abdominale (parte declivi excepta) ex majore parte primum, fascia secundi lata cum duabus maculis magnis basalibus, et segmentorum fasciæ sequentium, aurantiaca. Pedes fulvescentes, femorum parte apicali sæpe flavo-notata. Antennarum articulus primus antice flavescens aut fulvus, flagello sæpe subtus rufescente. Clypeus truncatus aut vix emarginatus, margine apicali recto aut perpaullo concavo, fortiter punctatus, puncturatione minuta interstitiali distinctissima. Frons cum thorace pilis erectis brevioribus subcrebre vestita, capite densissime punctato. Mesonotum densissime grosse punctatum, puncturatione distinctissima, sed subrugosa. Alæ subhyalinæ, costali parte fusco-flavescente, stigmate pallido, cellula marginali infumata. Tegulæ ex magna parte læves, politæ. Abdominis segmentum primum grosse, sæpe rugose punctatum, parte basali segmenti secundi remote aut irregulariter punctata. Long. 9–11 mm.

I have seen only five examples of this species and no two are alike in details of markings or sculpture, but I think they certainly all belong to a single species.

Hab. Queensland, Bundaberg, 2 ♀, taken by myself (June 1904); 1 ♀, Queensland (*ex coll. E. Saunders*); Mackay (*Turner*), 2 ♀.

In one of my Bundaberg examples the orbits are entirely

black, in the other they are yellow from the clypeus to the middle of the ocular sinus; in Saunders's example they nearly connect with the postocular orbital stripes.

89. *PARALASTOR MESOCHLORUS*, sp. n.

♀ præcedenti cognatissima, sed pronoti maculis hand ad angulos humerales extensis, segmento 2 abdominalis ad basim nigro, aut tantum maculis rufescentibus ornato, colore prini læte aut pallide flavescente, distinguenda. Long. circiter 9 mm.

This species is again variable, and there are evidently two distinct forms of it, but the material is far too poor for a proper understanding either of its definite specific characters or of its variation. Of the typical form there are 2 males and 1 female.

In the female the clypeus is almost truncate, red at the apex and along the sides, the antennæ are red beneath, infusate above, the scape and following joint less so than the others. There is a yellowish interantennal spot and a small orange one behind the eyes. The pronotum is red-marked in front medially and this colour extends back to the tegulæ very narrowly as a sutural line. The scutellum, postscutellum, and propodeum have large red markings, the tegulæ are reddish brown. Basal abdominal segment above bright (slightly orange) yellow. Second with a dull orange band not occupying one-fourth of the segment, the following ones also with apical bands. Hind tibiae dark at the apex, at least inwardly. Mesopleura with a red spot.

Clypeus of the male lightly emarginate, yellow, becoming reddish basally at least in the middle, otherwise the head coloured much like that of the female. Pronotum with red markings, produced to the humeral angles and along the suture to the tegulæ. The other thoracic markings are like those of the female, but bright yellow, a little orange-tinted, nearly concolorous with the basal abdominal segment; second segment either all black or coloured much as in the female, the basal spots reddish or brownish, if present.

PARALASTOR MESOCHLORUS MESOCHLOROIDES, st. n.

Female clypeus as in the preceding, but the coloured parts are yellow or partly yellow. Inner orbits with a yellow line from the clypeus extending into the sinus. Pronotum only with two obscure spots or faintly reddish on the suture medially. Thoracic markings bright lemon-yellow, the black median part of the propodeum less wide than in the male of the preceding, which these females resemble in appearance. Basal abdominal segment nearly concolorous with the thoracic markings. Second all black, the apical margin at most obscurely paler. Tegulæ bright yellow inwardly, and at the point of their deflexion less coarsely and deeply punctured than in the preceding form. Male not known.

Hab. Queensland, Mackay, 2 ♂, 1 ♀ typical form, in Sept. and Oct. 1899 (*Turner*); race *mesochloroides*, 2 ♀ at Kuranda, Feb. and April, 1902 (*Turner*).

90. *PARALASTOR DARWINIANUS*, sp. n.

♀. Nigra, clypeo cum parte mandibularum basali et antennarum articulo primo antice, macula mediana post clypeum, fere ad ocellum anteriorem extensa, orbitis interioribus et posterioribus (haud una conjunctis), fascia transversa pronotali, ad tegulas lineatim postice producta, utrinque dilatata, fere ad mesopleura producta, macula mesopleurali, tegulis thoracem versus, lineis duabus mesonotalibus elongatis, maculis 2 scutellaribus, postscutellaribus et propodealibus, margine postico sat late segmentorum abdominalium, flavis. Antennae cum parte majore pedum brunnescentes. Abdominis segmentum primum et secundum brunnea, plus minus atrofusca. Clypeus latus, minus fortiter productus, nitidus, subtiliter punctatus, apice emarginato, margine elevatulo. Frons cum thorace breviter erecte pilosa. Mesonotum distincte, vix dense punctatum. Abdominis segmentum primum haud ubique densissime punctatum, medium subfoveatum. Alae subfuscae, nitentes, stigmate pallido. Tegulae laeves, nitidissimae. Long. vix 10 mm.

A very distinct species. The yellow colour of the inner orbits curves round on each side behind the ocelli, but the extremities do not meet, and are well separated from the broad postocular stripes.

Hab. Port Darwin, 1 ♀ (*Dodd*).

91. *PARALASTOR COMPTUS*, sp. n.

♂. Niger, clypeo, macula mediana excepta, mandibularum parte basali, macula elongata frontali, orbitis interioribus ad sinus oculorum et sinibus ipsis, macula parva verticali oculos juxta, orbitis posterioribus lineatim ex majore parte, pronoti margine antico, macula mesopleurali, tegulis ex magna parte, maculis duabus scutellaribus, postscutellaribus et propodealibus, margine postico segmentorum 2 basaliū abdominis, tibiae omnes externae, et parte exteriori femorum intermediarum, flavis. Antennarum flagellus subtus fulvescens, supra infuscatus, rufo-tinctus. Stigma alarum atrum. Clypeus distinctissime angulatim emarginatus, punctis majoribus sparsissimis, albo-pubescentis. Mesonotum cum scutello profunde grosse punctatum, punctis inter se distinctissimis. Tegulae ex majore parte laeves et polite. Postscutellum cum propodeo distincte et profunde punctatum, punctis quam mesonotalibus paullo minus grossis. Abdominis segmentum primum grossissime punctatum. Segmentum 2 ventrale post sulcum late depressum, depressione antice elevato-marginata, segmento ultimo pilis sparsis erectis longioribus vestito. Long. 7-8 mm.

Var. *RUBESCENS*, nov.

Pronotum ex majore parte et pars mesonoti media late, rufescentia. Fascia prima abdominalis vage rufo-marginata. Segmentum secundum atrofusca.

I have seen only two males of this species, differing greatly in colour, as above described. The antennæ are 11-jointed, the three apical ones very minute, and difficult to see in my specimens, being sunk in the apical cavity of the eighth joint.

Hab. North Queensland, Herberton (*Dodd*).

92. *PARALASTOR ALEXANDRIÆ*, sp. n. (Pl. I. figs. 7, 22.)

With this species begins a small series of forms, distinguished at once from any of the preceding by the sculpture of the tegulæ, which are either densely minutely punctured over nearly all their surface or bear coarse and conspicuous punctures, with evident fine ones between these, towards the outer margin on the anterior part.

Brunneus, capitis vertice, nonnunquam etiam fronte, et rarius parte mesonoti antica, nigris. Clypeus ♂ totus, ♀ utrinque, macula interantennali, orbitis internis et externis (nonnunquam vix interrupte), maculis duabus pronotalibus, mesopleuralibus, scutellaribus, postscutellaribus et propodealibus cum majore tegularum parte, albo-flavis. Segmenta 2 basalia postice albido-flavo marginata, fascia prima lata, segmentis sequentibus etiam plus minusve fasciatis. Antennæ subtus plus minus rufescentes, articulo primo sæpe antice albido-flavo, aut toto ferrugineo, aut supra nigrescente, colore variabili. Alæ hyalinæ, parte costali plus minus infuscata, cellula marginali ex majore parte infuscata. Tibiæ omnes cum femoribus anterioribus et intermediis albido-lineatæ. Clypeus distincte emarginatus, ♀ remote punctatus, interstitiis minutissime punctatis, ♂ obscure punctatus, punctis sat magnis, sed levissime impressis, ubique albo-pubescent. Caput cum thorace tomentosus, hoc pilis erectis perpauca aut nullis vestito. Mesonotum postice sparsim aut irregulariter punctatum, superficie interstitiali conspicue minute punctata. Tegulæ crebre et minutissime punctatæ. Abdominis segmenti secundi margo apicalis fortiter depressus, latus; segmentum 2 ventrale antice grosse, postice subtilius, punctatum. Long. 7·5–9 mm.

Hab. N. Australia, Alexandria, Dec. 1905, 2 ♀, January, 1907, 1 ♂ and 1 ♀ (*W. Stalker*); Adelaide River, 2 ♀: all in the British Museum.

93. *PARALASTOR ARENICOLA*, sp. n.

♀. Caput nigrum, clypeo rufescente, utrinque flavescente; lineis orbitalibus, in sinum oculorum a clypeo productis, maculaque interantennali, flavescentibus, lineis postorbitalibus usque ad verticem capitis extensis. Pronotum rufescens, antice albido-flavo aut aurantiaco-flavo colore variegatum; mesonotum nigrum, plus minusve rufo-suffusum aut rufo-notatum; scutellum, margine antico excepto, cum postscutello rufescente, ambobus flavo-binotatis. Propodeum rufescens, latera versus nonnunquam flavescent. Mesopleura macula flavescente ornata, rufescentia aut nigro-variegata. Pedes rufescentes, tibiis albido-flavo lineatis. Abdomen

rufescens, segmento primo ante fasciam apicalem, latam, albido-flavam, nonnunquam nigro, secundo fascia fere simplici lata ornato, maculaque utrinque magna basali, pallide flava aut albida decorato. Clypeus levissime, sed sat distincte, emarginatus. Long. 7.5 mm.

Allied to the preceding, with generally similar sculpture and the apical margin of the second abdominal segment similarly depressed and wide. Easily distinguished by the fairly numerous and conspicuous large punctures of the tegulae, and the rougher postscutellum, which is rather differently formed.

Hab. Central Australia, Hermannsburg. 2 ♀ (*H. J. Hillier*). The specimens are not in very good condition, the one which is not mutilated being probably somewhat discoloured.

94. PARALASTOR SIMILLIMUS, sp. n.

Picturatio et color fere *P. constricti* (q. v.), sed statura minore. Clypeus ♂ flavus, ♀ macula parva nigrescente signatus, apice truncato, aut vix evidenter emarginato.

♀ clypeo obsoletius punctato (sc. punctis parum fortiter impressis), antennis crassioribus, tegulis opacis aut vix nitidis, puncta grossiora ferentibus, distinguenda. Long. 8 mm.

As the female of this species is unique and the male of *P. constrictus* is unknown, I have only been able to compare this female example with the latter species, and unfortunately I do not feel quite sure that this single female belongs to the males that I assign to *simillimus*. On account of the better material, I have taken a male as the type and not this unique female. It lacks the pair of large basal spots on the second abdominal segment at the base and the tegulae are less punctured than in the male. Seen in profile, the second segment is much more evenly rounded above than in *P. constrictus*, and this is also, to a less extent, true of the male.

The male has the tegulae very coarsely punctured over nearly the whole surface, the clypeal punctures are feebly impressed and the apex of the clypeus is truncate or almost so. The general sculpture is nearly the same as that of *constrictus*. The second ventral segment is not flattened or slightly depressed behind the transverse sulcus as it is in *constrictus*. The apical ventral segment has a very short pubescence, which is decumbent or sub-decumbent.

The species is quite distinct, and it is highly probable that the sexes are correctly associated.

Hab. Queensland, Mackay (*Turner*), 1 ♂, 1 ♀. I took the former sex at Bundaberg, but no ♀.

95. PARALASTOR SYNCHROMUS, sp. n.

Picturatio *P. constricti* picturationi fere similis, sed ♀ clypeo rufo, basin versus utrinque flavo-ornato, pronoto, desuper aspecto, ex majore parte aut ubique colorato, rufo flavoque colore variegato, scutello postscutelloque flavo-fasciatis (illo haud maculis bene

separatis ornato), fasciis integris, aut vix interruptis, maculis propodealibus rufis aut flavo-rufis, segmento 2 abdominali maculis basalibus carente, distinguenda. ♂ ♀ tegulis minutissime evidenter punctulatis et clypeo distinctissime emarginato, facile distinguendi; a *P. simillimo* clypeo distincte emarginato, primo aspectu separandi. Long. 8-9.5 mm.

The apical margin of the second abdominal segment is quite strongly depressed and rather wide; ventrally behind the sulcature it is depressed, and very remotely punctured. The apical ventral segment of the male is subconvex and clothed with erect, but not long, hairs.

Hab. Queensland, Mackay, ♂ ♀, 6 examples (*Turner*); Bundaberg, 1 ♂, 1 ♀, and Cairns, 1 ♀, taken by myself.

96. PARALASTOR LEPTIAS, sp. n.

Clypeus ♂, macula interantennalis, linea orbitalis sinum oculorum intrans (nonnunquam ex parte oblitterata aut rufescens), antennarum articulo primo ♂ antice, plerumque pallide flavescencia aut albo-flava. Pronotum ex magna, aut ex majore parte, scutellum et postscutellum maculatum, propodeum latera versus, rufescencia, hic illic flavo-variegata. Tegulae plus minusve flavo-notatae. Abdominis segmenta 3 aut 2 flavo-albido marginata, fasciis his antice rufo-variegatis. Pedes colore variabiles, rufescentes plus minus flavo-albido-variegati, femoribus posterioribus plerumque nigris. Mandibulae rufescentes, ♂ albido-notatae. Clypeus ♀, et antennarum articulus primus antice, rufescentes, illo plerumque utrinque albido-maculato. Clypeus ♂ saepe plus minus antice rufo-notatus. Mesopleura rufo-maculata, macula nonnunquam plus minus flavescencia. Alae, costali parte excepta, parum infusatae.—Species elongata, gracilis, abdominis segmento primo campanuliformi, secundo elongato, angusto, lateribus subparallelis, basim juxta angustatis. Clypeus subfortiter emarginatus. Caput cum thorace pilis brevioribus erectis vestitum. Mesonotum et scutellum grosse, distincte punctata, puncturatione mesonotali postice irregulari aut minus densa. Abdominis segmentum ventrale ♂ apicale pilis brevissimis vestitum, leviter convexum. Antennae ♂ 11-articulatae, articulis 3 ultimis minimis, in concavitate articuli 8 receptis. Long. 7.5-8.5 mm.

On account of its very narrow second segment of the abdomen, this species appears rather out of place in this division, the first segment appearing less small in comparison with the hinder parts. It varies a good deal in details of coloration, the second abdominal segment sometimes having two conspicuous rufescent basal spots and sometimes lacking these. The lines along the outer orbits are usually distinctly bicolorous, and are abbreviated in some specimens. The tegulae have a minute and plentiful puncturation, and generally a few larger, but feeble, punctures are noticeable.

Hab. Adelaide; collected for me by some of the late T. B. Blackburn's pupils.

97. *PARALASTOR IGNOTUS*, sp. n.

♂. Clypeus, antennarum articulus primus antice, pronotum, tegulæ, macula mesopleuralis, scutellum postscutellumque et propodeum utrinque, aurantiaco-flavescentia. Abdominis segmentum primum, plaga nigra basali excepta, cum pronoto fere concolor, secundo fascia simili, irregulari, apicali, duabusque maculis basalibus obscurioribus, ornato. Pedes ex maiore parte aurantiaco-flavescentes, femoribus posterioribus nigris. Stigma alarum atrum. Antennarum articulus 8 plus minus rufescens. Clypeus subfortiter dentato-emarginatus, subcrebre punctatus, dense argenteo-pubescent. Mesonotum fortiter punctatum, nitidum. Abdominis segmentum ultimum ventrale pilis erectis, sat conspicuis, densius vestitum, subtilissime distincte punctatum. Tegulæ nitidæ, puncturatione minuta distincta, paucis punctis majoribus præsentibus. Long. circiter 9 mm.

Hab. Australia, Swan River, 1 ♂.

98. *PARALASTOR ICARIOIDES*, sp. n. (Pl. I. fig. 2.)

Colore et picturatione fere *P. mesochloro* var. *mesochloroidei* assimilis, maculis scutellaribus, propodealibus et postscutellaribus cum abdominis segmento primo citrinis, sed tegulis minute et copiose punctatis facillime distinguendus.

This species varies in details of coloration, the pronotum above being sometimes nearly all red, sometimes only spotted with red in front, and may have two quite distinct yellow spots in the red colour. The clypeus may be entirely yellow in the male or yellow only at the base, the rest being reddish or brownish red. In the female it is usually red, sometimes, however, more or less yellow at the sides towards the base. The inner orbits may be yellow or red, or with the markings wanting. The second abdominal segment is all black or may become piceous along the apical margin, or with a brownish apical fascia. The wings are yellowish along the costa, the marginal cell conspicuously infumate, the stigma pale. The apical margin of the second abdominal segment is strongly depressed, the flattened margin wide. Antennæ brown, often paler beneath, sometimes nearly wholly fulvescent, the scape yellow in front in the male. Length 7-9 mm.; the former measurement from a small male.

I have examined fourteen examples. The species is quite distinct from *P. mesochlorus* by the different scutellum, apart from the tegular sculpture.

Hab. Queensland, Townsville (*Dodd & Stalker*); Kuranda near Cairns (*Turner & Dodd*); Cairns, taken by myself.

Species quæ sedis incertæ sunt, aut haud supra enumeratæ.

I have in the first part (*q. v.*) of this paper suggested the probable position of some of the following species or otherwise referred to them :—

99. *P. AUSTRALIS* Sauss.

Hab. Australia.

100. *P. CRUENTATUS* Sauss.

Hab. Australia.

101. *P. GRÆFFEI*.

Hab. Fiji; Ovalau.

102. *P. SMITHI* Sauss.

Hab. Australia.

103. *P. HIRTIVENTRIS* Cameron.

Hab. New Guinea.

104. *P. ABNORMIS* * Bingham.

Hab. W. Australia.

PSEUDOZETHIUS, gen. nov.

♂. Clypeus transversus, subrotundatus, clypeo generis *Ischnocelie* fere similis. Mandibulæ breves, robustæ, apice obliquo, dentibus 4 armato, dentibus 2 intermediis minoribus. Palpi maxillares 6-articulati, articulis 4 basalibus haud multo longitudine inæqualibus, his omnibus sat fortiter elongatis, articulo quarto duobus ultimis, una conjunctis, vix brevior. Ligula sat elongata, haud setosa, quam mentum circiter bis longior. Palpi labiales 4-articulatæ, articulo primo gracili, perlongo, apice dilatato, quam secundum (quod elongatum est, et sat robustum), multo longiore; articulis 2 ultimis elongatis, gracilibus, subæqualibus, una conjunctis secundo vix longioribus. Antennæ 13-articulatæ, articulo ultimo uncum fortem formante. Pronotum ad truncationem suam emarginatum, angulis distinctis, margine acute elevato. Postscutellum postice truncatum, desuper visum postice emarginatum, angulis lateralibus conspicue productis. Propodeum medium impressum et profunde foveolatum, impressione angustula, lateribus suis rotundatis. Abdomen ut in nonnullis speciebus generis *Zethi* formatum (cf. *Z. caruleipennis* F.). Segmenti primi pars pedicellata sat elongata; pars postpetiolaris subglobosa, aut valde supra convexa, ante marginem apicalem profunde transversim sulcata. Segmentum secundum longe campanulatum, basi valde constricta, quasi breviter pedicellata.

Tibiæ intermediæ duobus calcaribus distinctis instructæ. Alarum cellula 2 cubitalis supra brevissime petiolata. Hoc excepto, neuratio fere *Ischnocelie*. Tarsorum ungues bifidæ.

♀ incognita.

* I have recently been able to examine this species. Bingham's remarks (Tr. Ent. Soc. 1912, p. 381) on the antennæ are incorrect. In the examples he described, a moderately strong lens shows the antennæ to be normal for *Paralastor*, i. e. 11-jointed. The species should be placed next to *P. orientalis*.

PSEUDOZETHUS AUSTRALENSIS, sp. n.

Niger, clypeo, linea mandibulari, articulo antennarum primo, pronoti fascia transversa, tegulis, maculis scutelli duabus, spinis postscutellaribus, tibiis, tarsis, femorumque apicibus, fascia lata postpetiolaris et margine apicali segmentorum sequentium, coloratis, partibus nonnullis colore flavo-aurantiaco, nonnullis rufo decoratis. Thorax sat nitidus, grosse punctatus, propodeo rugosum punctato et opaco. Abdominis pars postpetiolaris segmenti primi fortiter punctatus, sulco apicali trifoveato. Segmentum secundum fusco-tomentosum, medium juxta marginem apicalem foveatum, subtilius remote punctatum, fascia apicali circa partem quintam segmenti occupante. Alæ flavo-hyalinæ, costam juxta flavescentes. Long. 13 mm.

The clypeus and the mandibular lines are orange-yellow, the other markings orange-red or red. The third abdominal segment is less distinctly foveate at the middle apically than the preceding one. Allied to *Elimus*, but the spinose angles of the postscutellum and the *Zethus*-like form of the basal abdominal segment are very distinctive.

Hab. N. Queensland, Australia (*F. P. Dodd*).

RHYNCHIUM AUSTRALENSE, sp. n.

♂. Aurantiaeco-flavum, clypeo, et antennarum articulo primo antice, flavis. Propodeum abdominisque segmenta 2 basalia nigra aut nigricantia. Margo apicalis segmenti primi obscure, secundi late, aurantiacus. Pedes posteriores ex majore parte nigre. Alæ flavescentes, apicibus late nigris. Apex clypei levissime emarginatus, utrinque subcarinatus. Mesonotum minus grosse punctatus, postice læve et impunctatum; scutellum impunctatum; propodeum rugosum, lateribus spinosis, concavitate sua ex majore parte lævi et nitida, postice transversim oblique rugosa. Abdominis segmentum primum remote subtilius punctatum, secundum similiter punctatum, fascia aurantiaca partem circiter dimidium apicalem occupante; segmentum apicale ventrale, basi excepta, pilis longioribus erectis vestitum.

Long. 14 mm. ♀ incognita.

In the single example examined, the propodeum is tinged with red at the sides, the mesosternum and the larger part of the mesopleura are black.

Hab. North Queensland (*Dodd*).

ABISPA MEADE-WALDOENSIS, sp. n.

Almost exactly resembles in appearance the giant *Odynerus*, or more probably *Rhynchium*, described as *Abispa paragioides* by Meade-Waldo, but is a true *Abispa*, excessively close to *A. ephippium* and perhaps only a local race of this. I can see no structural difference other than may well be individual. The

whole thorax above and beneath is brownish red, the pronotum, scutella, and propodeum laterally orange. The tomentum of the mesonotum is pale, not black as in other species. Abdomen as in *A. ephippium*. Length 24 mm.

Hab. Port Darwin (*Dodd*).

EXPLANATION OF THE PLATE.

- Fig. 1. Part of 1st and 2nd abdominal segments of *P. parca* Sauss., in lateral aspect. 1 *d.* 1st dorsal segment; 2 *d.* 2nd dorsal; 2 *v.* 2nd ventral.
2. Part of the first and the following segments of *P. icarioides* P. The third and fourth segments were withdrawn within the second.
3. Part of first and second abdominal segments of *P. tuberculatus* Sauss., in lateral aspect.
4. Median longitudinal section of the 2nd ventral segment of *P. oloris* in lateral aspect (diagrammatic).
5. The same of *P. tricolor* P.
6. The same of *P. solitarius* P.
7. The same of *P. alexandriæ* P.
8. The same of *P. mutabilis* P.
9. The same of *P. multicolor* P.
10. Apex of clypeus of *P. imitator*, very lightly emarginate.
11. The same of *P. dentiger*, somewhat strongly emarginate.
12. The same of *P. optabilis* (clypeus quasi tri-dentatus).
13. The same of *P. atripennis* (also quasi tri-dentatus).
14. The same of *P. pseudochromus* (clypeus fortissime emarginatus).
15. The same of *P. subplebeius*; clypeus truncate, but slightly rounded.
16. The same of *P. oloris* (clypeus recte truncatus).
17. The five apical joints of the antennæ of *P. punctulatus* ♂.
18. The small 9th, 10th and 11th antennal joints of *P. hilaris*, and the apical portion of the 8th, in the terminal cavity of which the others lie.
19. Three terminal joints of *P. multicolor*, the two latter very small and lying in the apical cavity of the 8th.
20. Tegula of *P. debilis*, showing the coarse puncturation of its outer portion.
21. The same of *P. orientalis*. The coarse punctures are not equally numerous in all examples, but the sculpture is very different from that of species which have the tegulæ very minutely punctured.
22. The same of *P. alexandriæ*. The other parts of the tegulae are, of course, sculptured, but only that part (or some of that part) which gives the best specific characters in different species is shown in this and the preceding figures.